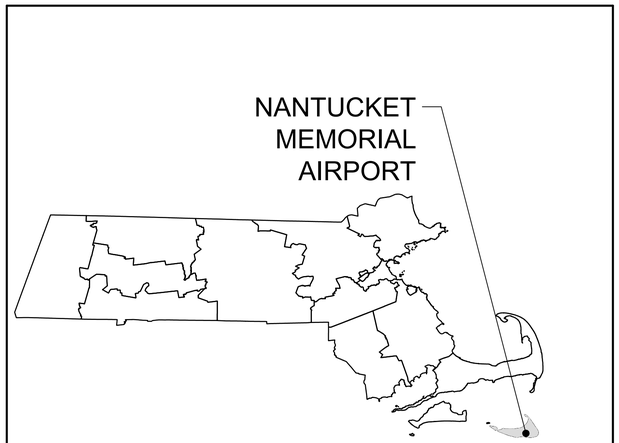
NANTUCKET MEMORIAL AIRPORT

CONSTRUCT, MARK, LIGHT, AND SIGN SOUTH APRON EXPANSION PHASE 1 (APPROX. 30,000 SY) (BASE BID); CONSTRUCT DRAINAGE IMPROVEMENTS (ADD ALT #1); CONSTRUCT SOUTH APRON EXPANSION PHASE 2 (APPROX. 10,000 SY) (ADD ALT #2)

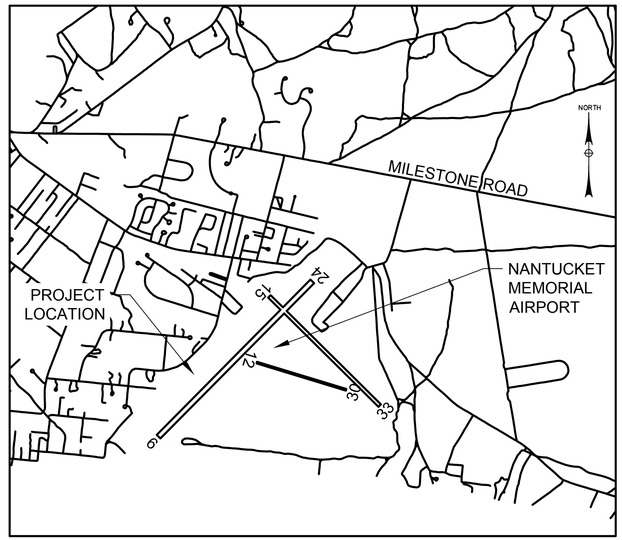
CONFORMED DOCS
SEPTEMBER 2023

NANTUCKET
NANTUCKET COUNTY
MASSACHUSETTS

FAA A.I.P. 3-25-0033-085-2023



LOCATION MAP



VICINITY MAP

PREPARED FOR:

NANTUCKET MEMORIAL AIRPORT
14 AIRPORT ROAD
NANTUCKET, MASSACHUSETTS
(508) 325-5300
WWW.NANTUCKET-MA.GOV

PREPARED BY:

McFarland Johnson
125 NAGOG PARK, SUITE 220
ACTON, MASSACHUSETTS 01720

18706.07

SEALED

PE NO

DATE

DESIGN STANDARDS TABLE					
TAXIWAY	TAXIWAY DESIGN GROUP (TDG)	AIRPLANE DESIGN GROUP (ADG)	TAXIWAY SAFETY AREA WIDTH	TAXIWAY OBJECT FREE AREA WIDTH	DESIGN AIRCRAFT
APRON TAXILANE	3	III	118'	158'	AIRBUS A220-300
TAXIWAY J	3	III	118'	171'	AIRBUS A220-300
TAXIWAY L	3	III	118'	171'	AIRBUS A220-300
PARKING POSITIONS A1-A8	N/A	N/A	N/A	N/A	GULFSTREAM G650
PARKING POSITION A9	N/A	N/A	N/A	N/A	AIRBUS A220-300
PROJECT DESIGNED PER ADVISORY CIRCULAR'S: 150/5300-13B, 150/5340-1M, 150/5370-2G, 150/5370-10H					

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11	CS-04	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2B
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13	CS-06	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2D
14	CS-07	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3
15	CS-08	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 4
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17	CS-10	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 6
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PROJECT WORK SUMMARY

DESCRIPTION	ASSOCIATED WORK AREAS	DESCRIPTION OF WORK
BASE BID	1,2,4,5,6	CONSTRUCT SOUTH APRON EXPANSION, INCLUDING TAXIWAY J AND TAXIWAY L, PARKING POSITIONS A1 THROUGH A6, DRAINAGE IMPROVEMENTS, NOISE MONITORING, SECURITY CAMERAS, APRON LIGHTING, AIRFIELD LIGHTING, AND OTHER ANCILLARY ITEMS
ADD ALT 1	3	REMOVE AND REPLACE CATCH BASINS ON EXISTING SOUTH APRON
ADD ALT 2	2	CONSTRUCT SOUTH APRON EXPANSION INCLUDING PARKING POSITIONS A7 THROUGH A9

SUBMISSIONS TABLE

#	SUBMISSION	DATE
1	SCHEMATIC DESIGN	MAY 12, 2023
2	60% DESIGN	MAY 26, 2023
3	100% DESIGN	JUNE 12, 2023
4	BID DOCUMENTS	JUNE 19, 2023

THESE PLANS WERE PRODUCED WITH THE ASSISTANCE OF THE FOLLOWING SUBCONSULTANTS

	FIRM	TASK	ADDRESS
GM2	GM2 ASSOCITES INC.	SURVEY	197 LOUDON ROAD, SUITE 310, CONCORD, NH 03301
S.W.COLE ENGINEERING, INC	S.W. COLE ENGINEERING INC.	GEOTECHNICAL INVESTIGATION	490A WINTHROP STREET, TAUNTON, MA 02780
CDW CONSULTANTS	CDW CONSULTANTS INC.	DRAINAGE DESIGN	6 HURON DRIVE, NATICK, MA 01760
hmmh	HMMH INC.	NOISE MONITORING AND EMISSIONS	700 DISTRICT AVE., STE. 800, BURLINGTON, MA 01803
vhb	VHB INC.	SPCC AND ENVIRONMENTAL SUPPORT	101 WALNUT STREET, PO BOX 9151, WATERTOWN MASSACHUSETTS 02472
WESTON SOLUTIONS	WESTON INC.	LSP SERVICES	300 DELAWARE AVE # 12109, WILMINGTON, DE 19801

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	NTS
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

SHEET LIST AND PROJECT INFORMATION

DRAWING NUMBER

GN-00

2 OF 72

K:\NANTUCKET\18706.07 AOK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-NOTE.DWG

BASE BID - SCHEDULE A			
BID ITEM	DESCRIPTION OF ITEM	UNIT	QUANTITY
M-100-1	REMOVE AND DISPOSE OF EXISTING AIRCRAFT TIE-DOWN ANCHORS	EA	30
M-100-2	INSTALL AIRCRAFT TIE-DOWN ANCHORS	EA	36
M-110-1	ENGINEER'S FIELD OFFICE	LS	1
M-120-1	CSPP COMPLIANCE AND MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1
M-200-1	PFAS HANDLING (CONSTRUCTION DEBRIS)	LS	1
M-200-2	PFAS EQUIPMENT DECONTAMINATION	LS	1
M-200-3	TREATMENT OF SITE WATER	LS	1
M-200-4	AIRPORT LICENSED SITE PROFESSIONAL	ALL	1
M-250-1	REMOVE AND CAP EXISTING IRRIGATION WELL	LS	1
M-300-1	15 ' ALUMINUM POLE, FIXTURES, CONCRETE BASE, AND HANDHOLE	EA	7
M-300-2	30 ' ALUMINUM POLE, FIXTURES, CONCRETE BASE, AND HANDHOLE	EA	2
M-300-3	TIMECLOCK LIGHTING CONTROLS AND LIGHTING CABINET	EA	1
M-300-4	208/120V, 3 PHASE, NEMA 3R PANELBOARD & BREAKERS	EA	1
M-300-5	480/277V, 3 PHASE, NEMA 3R PANELBOARD & BREAKERS	EA	1
M-300-6	50 KVA DRY TYPE TRANSFORMER	EA	1
M-300-7	3-BUTTON PUSHBUTTON LIGHT SWITCH	EA	3
M-300-11	#8 AWG, 600V COPPER WIRE, INSTALLED IN DUCT BANK OR CONDUIT, INCLUDING CONNECTION/TERMINATIONS	LF	58000
M-300-14	UTILITY COMPANY SERVICE INSTALLATION - ALLOWANCE - $40,000	ALL	1
M-300-15	MODIFICATIONS IN ARFF BUILDING	LS	1
M-400-1	ERADICATE INVASIVE SPECIES	Acre	0.5
M-400-2	SOIL CONDITIONING AND SEEDING	SY	2500
M-400-3	GROUND SCARIFICATION	Acre	1.1
M-400-4	TERRAIN SMOOTHING	LS	1
M-700-1	STORMWATER INFILTRATION SYSTEM	LS	1
M-800-1	MASSDOT GRAVEL BASE COURSE	CY	40
M-800-2	MASSDOT HOT MIX ASPHALT SURFACE PAVEMENT COURSE (SSC 12.5)	TON	60
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	LS	1
C-102-5.1a	TEMPORARY SEEDING AND MULCHING	SY	33420
C-102-5.1b	INSTALLATION AND REMOVAL OF INLET PROTECTION	EA	15
C-102-5.1c	STABILIZED CONSTRUCTION ENTRANCE	EA	5
C-102-5.1d	INSTALLATION AND REMOVAL OF SILT FENCE	LF	5000
C-102-5.1e	EROSION CONTROL MATTING	SY	16100
C-105	MOBILIZATION (5% MAX)	LS	1
P-101-5.1	PAVEMENT REMOVAL	SY	3200
P-101-5.2	COLD MILLING (0-4")	SY	1300
P-101-5.3	REMOVAL OF PIPE AND OTHER BURIED STRUCTURES	LS	1
P-151-4.2	CLEARING AND GRUBBING	AC	6
P-152-4.1a	UNCLASSIFIED EXCAVATION	CY	28600
P-152-4.1b	ROCK EXCAVATION	CY	100
P-152-4.1c	MUCK EXCAVATION	CY	100
P-152-4.1d	BORROW EXCAVATION	CY	6200
P-154-5.1	SUBBASE COURSE	CY	4100
P-154-5.2	SEPARATION GEOTEXTILE	SY	3300
P-209-5.1	CRUSHED AGGREGATE BASE COURSE	CY	6900
P-401-8.1	ASPHALT SURFACE COURSE	TON	10200
P-403-8.1	ASPHALT MIXTURE BASE COURSE	TON	2900
P-603-5.1	EMULSIFIED ASPHALT TACK COAT	GAL	10600
P-605-5.1	JOINT SEALING FILLER	LF	4230
P-620-5.1a	SURFACE PREPARATION	SF	100
P-620-5.2b	MARKING	SF	9400
P-620-5.3c	REFLECTIVE MEDIA	LB	650
D-701-5.1	24-INCH CLASS V, REINFORCED CONCRETE PIPE	LF	50
D-701-5.2	36-INCH CLASS V, REINFORCED CONCRETE PIPE	LF	700
D-701-5.3	24-INCH HIGH DENSITY POLYETHYLENE (HDPE) PIPE	LF	830
D-701-5.4	36-INCH HIGH DENSITY POLYETHYLENE (HDPE) PIPE	LF	130
D-701-5.5	36-INCH HIGH DENSITY POLYETHYLENE (HDPE) PERFORATED PIPE	LF	2530
D-751-5.1	MANHOLES	EA	18
D-751-5.2	CATCH BASINS	EA	14
F-162-5.3	INSTALL AND REMOVE TEMPORARY SWING GATE	EA	3
F-162-5.4a	INSTALL AND REMOVE TEMPORARY FENCE WITH BARBED WIRE	LF	3400
F-162-5.4b	INSTALL AND REMOVE TEMPORARY FENCE ON BARRICADE WITH BARBED WIRE	LF	430
T-901-5.1	SEEDING	1KSF	550
T-905-5.1	TOPSOIL (OBTAINED ON SITE OR REMOVED FROM STOCKPILE)	CY	4000
T-908-5.1	MULCHING	SY	60000
L-108-5.2	NO. 8 AWG, 5 KV, L-824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK OR CONDUIT	LF	7100
L-108-5.3	NO. 6 AWG, SOLID, BARE COPPER COUNTERPOISE WIRE, INSTALLED IN TRENCH, ABOVE THE DUCT BANK OR CONDUIT, INCLUDING CONNECTIONS/TERMINATIONS	LF	8500
L-110-5.1	NON-ENCASED ELECTRICAL CONDUIT, 1-WAY 2-INCH	LF	5100
L-110-5.2	CONCRETE ENCASED ELECTRICAL CONDUIT, 1-WAY 2-INCH	LF	400
L-110-5.3A	CONCRETE ENCASED ELECTRICAL DUCT BANK, 4-WAY 4-INCH	LF	1600
L-110-5.3B	CONCRETE ENCASED ELECTRICAL DUCT BANK, 8-WAY 4-INCH	LF	2200
L-110-5.4	REMOVE NON-ENCASED ELECTRICAL CONDUIT AND CABLE	LF	3300
L-110-5.5	REMOVE EXISTING CABLE, CONDUIT TO REMAIN	LF	2770
L-110-5.6	REMOVE CONCRETE ENCASED ELECTRICAL DUCT BANK AND CABLE	LF	150
L-115-5.1	ELECTRICAL JUNCTION STRUCTURE 4' X 4'	EA	26
L-115-5.2	REMOVE EXISTING ELECTRICAL HANDHOLE	EA	2
L-125-5.1	BASE MOUNTED L-861T(L) LED ELEVATED TAXIWAY EDGE LIGHT IN TURF	EA	32
L-125-5.2	UNLIT AIRFIELD GUIDANCE SIGN	EA	2
L-125-5.3A	L-858 (L) AIRFIELD GUIDANCE SIGN AND FOUNDATION (1 MODULE)	EA	3
L-125-5.3B	L-858 (L) AIRFIELD GUIDANCE SIGN AND FOUNDATION (2 MODULE)	EA	3
L-125-5.3C	L-858 (L) AIRFIELD GUIDANCE SIGN AND FOUNDATION (3 MODULE)	EA	1
L-125-5.3B	L-858 (L) AIRFIELD GUIDANCE SIGN AND FOUNDATION (2 MODULE)	EA	3
L-125-5.3C	L-858 (L) AIRFIELD GUIDANCE SIGN AND FOUNDATION (3 MODULE)	EA	1
L-125-5.4	REMOVE AND RELOCATE EXISTING ELEVATED TAXIWAY EDGE LIGHT AND BASE	EA	11
L-125-5.5	REMOVE AND RELOCATE EXISTING AIRFIELD SIGN AND FOUNDATION	EA	2
L-125-5.6	REMOVE AND RELOCATE EXISTING FIELD LIGHTNING ARRESTOR AND BASE	EA	1
L-125-5.7	REMOVE EXISTING ELEVATED TAXIWAY EDGE LIGHT AND BASE	EA	23
L-125-5.9	REMOVE EXISTING AIRFIELD SIGN AND FOUNDATION	EA	4

BASE BID - SCHEDULE B			
BID ITEM	DESCRIPTION OF ITEM	UNIT	QUANTITY
M-201-1	INSTALL MATERIAL SURPLUS COVER SYSTEM	LS	1
M-300-2	30 ' ALUMINUM POLE, FIXTURES, CONCRETE BASE, AND HANDHOLE	EA	1
M-300-2A	30' ALUMINUM POLE FOR NMT EQUIPMENT, CONCRETE BASE, AND HANDHOLE	EA	2
M-300-8	CAT 6 CABLE INSTALLED IN CONDUIT, INCLUDING CONNECTIONS/TERMINATIONS	LF	350
M-300-9	#1 AWG, 600V COPPER WIRE, INSTALLED IN DUCT BANK OR CONDUIT, INCLUDING CONNECTION/TERMINATIONS	LF	4500
M-300-10	#4 AWG, 600V COPPER WIRE, INSTALLED IN DUCT BANK OR CONDUIT, INCLUDING CONNECTION/TERMINATIONS	LF	850
M-300-12	#12 AWG, 600V COPPER WIRE, INSTALLED IN DUCT BANK OR CONDUIT, INCLUDING CONNECTION/TERMINATIONS	LF	350
M-300-13	2-STRAND FIBER CABLE (OS2 & 4GB CAPACITY) INSTALLED IN CONDUIT, INCLUDING CONNECTIONS/TERMINATIONS	LF	9000
M-500-1	NOISE MONITOR TERMINAL, ENCLOSURE, AND MEDIA CONVERTER	EA	2
M-600-1	FIXED DOME IP CAMERA	EA	3
M-600-2	PTZ IP CAMERA	EA	1
M-600-3	CAMERA NETWORK SWITCH AND ENCLOSURE	EA	4
M-600-4	MEDIA CONVERTER	EA	4
F-162-5.1	REMOVE AND REPLACE CHAIN-LINK PERIMETER FENCE	LF	1300

ADD ALT 1			
BID ITEM	DESCRIPTION OF ITEM	UNIT	QUANTITY
P-101-5.3	REMOVAL OF PIPE AND OTHER BURIED STRUCTURES	LS	1
D-751-5.3	CATCH BASINS IN EXISTING PAVEMENT	EA	7

ADD ALT 2			
BID ITEM	DESCRIPTION OF ITEM	UNIT	QUANTITY
P-152-4.1a	UNCLASSIFIED EXCAVATION	CY	3300
P-152-4.1d	BORROW EXCAVATION	CY	1500
P-154-5.1	SUBBASE COURSE	CY	1300
P-154-5.2	SEPARATION GEOTEXTILE	SY	1100
P-209-5.1	CRUSHED AGGREGATE BASE COURSE	CY	2200
P-401-8.1	ASPHALT SURFACE COURSE	TON	3100
P-403-8.1	ASPHALT MIXTURE BASE COURSE	TON	1000
P-501-8.1	CONCRETE PAVEMENT	SY	550
P-603-5.1	EMULSIFIED ASPHALT TACK COAT	GAL	3200
P-605-5.1	JOINT SEALING FILLER	LF	1200
P-620-5.2b	MARKING	SF	2300
P-620-5.3c	REFLECTIVE MEDIA	LB	40

GENERAL INCIDENTAL ITEMS AND CLARIFICATION NOTES: ITEMS LISTED BELOW ARE GENERAL CLARIFICATIONS AND DO NOT INCLUDE CLARIFICATIONS TO ALL WORK ITEMS. IF ANYTHING LISTED BELOW IS CONTRADICTED BY THE SPECIFICATIONS THEN THE SPECIFICATION SHALL DICTATE.

1. P-101-5.1: PAVEMENT REMOVAL
   - 1.1. ALL SAWCUTTING SHALL BE INCIDENTAL TO ITEM P-101-5.1.
   - 1.2. REMOVAL OF EXISTING ASPHALT PAVEMENT (APPROX. 3") AND BASE COURSE (APPROX. 6") SHALL BE INCIDENTAL TO THE ITEM P-101-5.1, PAVEMENT REMOVAL. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR PAVEMENT OR BASE COURSE EXCEEDING THESE DEPTHS.

2. P-101-5.2: COLD MILLING
   - 2.1. COORDINATION, METERING, AND PROCUREMENT OF WATER NECESSARY FOR COLD MILLING IS INCIDENTAL TO THIS ITEM.

3. P-101-5.3: REMOVAL OF PIPE AND OTHER BURIED STRUCTURES
   - 3.1. THIS ITEM INCLUDES THE REMOVAL OF ALL UNDERGROUND STRUCTURES, DRAINAGE PIPE, OR OTHER UNDERGROUND ITEMS AS REQUIRED BY THE PLANS.

4. P-152-4.1a: UNCLASSIFIED EXCAVATION
   - 4.1. THIS ITEM INCLUDES ANY MATERIAL THAT IS EXCAVATED DURING TOPSOIL STRIPPING AND EXCAVATION AND GRADING, INCLUDING BUT NOT LIMITED TO: EXISTING TOPSOIL, SUITABLE MATERIAL, GRAVEL, AND ORGANICS.

5. P-152-4.1d: BORROW EXCAVATION
   - 5.1. REFER TO SHEET GN-03 FOR LOCATION OF AIRPORT OWNED STOCKPILES.

6. P-154-5.1: SUBBASE COURSE
   - 6.1. IT IS THE PROJECTS INTENT TO RECLAIM THE EXISTING PAVEMENTS, BASE MATERIAL, MATERIAL FROM AIRPORT-OWNED STOCKPILES, PORTIONS OF THE SUBBASE MATERIAL TO PRODUCE, ON SITE P-154 MATERIAL THAT MEETS THE P-154 SPECIFICATION. THE CONTRACTOR SHALL DETERMINE AND PROVIDE SUPPLEMENTAL AGGREGATES/MATERIALS NEEDED TO MEET THE P-154 SPECIFICATION AT NO ADDITIONAL COST TO THE OWNER. MEASUREMENT FOR PAYMENT WILL INCLUDE: ITEM P-101-5.1 PAVEMENT REMOVAL, ITEM P-152-4.1a UNCLASSIFIED EXCAVATION AND P-154-5.1 SUBBASE COURSE. BLENDING AND MIXING TO PRODUCE A UNIFORM BLEND OF P-154 SUBBASE MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS AS WELL AS ANY SUPPLEMENTAL AGGREGATE REQUIRED.

7. P-401: ASPHALT MIX PAVEMENT
   - 7.1. AN ANTI-STRIPPING AGENT IS REQUIRED FOR ASPHALT SURFACE COURSE. THIS SHALL BE INCIDENTAL TO P-401-8.1.

8. P-403: ASPHALT MIX PAVEMENT BASE COURSE
   - 8.1. AN ANTI-STRIPPING AGENT IS REQUIRED FOR ASPHALT MIXTURE BASE COURSE. THIS SHALL BE INCIDENTAL TO P-403-8.1.

9. P-620: MARKING
   - 9.1. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT AS REQUIRED. THE INITIAL APPLICATION SHALL BE PERFORMED AT AN APPLICATION RATE OF 230 FT^2/GAL. THE FINAL COAT SHALL BE APPLIED AT PERMANENT APPLICATIONS RATE WITH REFLECTIVE MEDIA. FINAL PAYMENT TO THE CONTRACTOR FOR MEASURED QUANTITIES SHALL BE FOR BOTH COATS.
   - 9.2. THE INITIAL PAINT APPLICATION SHALL BE PAID FOR UNDER P-620-5.2B. THE FINAL PAINT APPLICATION SHALL BE PAID FOR UNDER P-620-5.2B AND P-620-5.2C.
   - 9.3. THE FINAL APPLICATION SHALL BE PERFORMED NO EARLIER THAN 30 DAYS FOLLOWING THE APPLICATION OF THE INITIAL APPLICATION. THE CONTRACTOR SHALL COORDINATE THE SCHEDULE OF THE FINAL APPLICATION WITH THE RPR AND AIRPORT OPERATIONS.
   - 9.4. NO SEPARATE PAYMENT SHALL BE MADE FOR PREPARATION OF PAVEMENT PRIOR TO INITIAL AND FINAL PAINT APPLICATIONS.
   - 9.5. THE CONTRACTOR SHALL BE PAID FOR REMOVAL OF EXISTING MARKINGS UNDER ITEM P-620-5.1A.

10. D-701: DRAINAGE PIPE
    - 10.1. ALL FITTINGS SHALL BE INCLUDED IN THE FOOTAGE AS TYPICAL PIPE SECTIONS IN THE PIPE BEING MEASURED AND SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
    - 10.2. PIPE CONNECTIONS TO EXISTING AND NEW DRAINAGE STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE D-701 PIPE INSTALLATION..

11. L-108-5.1: NO. 8 AWG, 5 KV, L-824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK, OR CONDUIT
    - 11.1. MEASUREMENT FOR THIS ITEM SHALL NOT INCLUDE ADDITIONAL QUANTITIES REQUIRED FOR SLACK. CABLE AND COUNTERPOISE SLACK IS CONSIDERED INCIDENTAL TO THIS ITEM.

12. L-108-5.2: NO. 6 AWG, COPPER GROUND WIRE, INCLUDING CONNECTIONS AND TERMINATIONS
    - 12.1. NO SEPARATE PAYMENT WILL BE MADE FOR GROUND RODS. GROUND RODS SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

13. L-115-5.2: ELECTRICAL HANDHOLE
    - 13.1. ALL CONNECTIONS INTO ELECTRICAL STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

QUANTITY TABLES AND NOTES

DRAWING NUMBER

GN-01

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GENERAL NOTES:

1. CONTRACT DOCUMENTS

1.1 THE CONTRACT DOCUMENTS SHALL CONSIST OF THE CONFORMED CONTRACT PLANS, AND CONFORMED CONTRACT SPECIFICATIONS, THAT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- TABLE OF CONTENTS;
- INVITATION TO BID;
- INSTRUCTIONS TO BIDDERS;
- BID PROPOSAL;
- BID BOND;
- AWARD OF CONTRACT AND EXECUTION OF CONTRACT BONDS;
- CONTRACT AGREEMENT;
- PERFORMANCE BOND;
- PAYMENT BOND;
- NOTICE OF AWARD;
- NOTICE TO PROCEED;
- CONTRACTOR'S GUARANTY;
- SPECIAL PROVISIONS;
- FAA - GENERAL PROVISIONS;
- FAA - TECHNICAL SPECIFICATIONS;
- PLANS;
- ADDENDUMS; and
- AND OTHER DOCUMENTS AS REFERENCED IN THE GENERAL PROVISIONS.

1.2 THE BIDDER IS EXPECTED TO CAREFULLY EXAMINE THE SITE OF THE PROPOSED WORK, THE PROPOSAL, FRONT END DOCUMENTS, BIDDING REQUIREMENTS, CONTRACT DOCUMENTS, GENERAL PROVISIONS, TECHNICAL SPECIFICATIONS, SUPPLEMENTAL PROVISIONS, AND CONTRACT PLANS. THE BIDDER SHALL BE SATISFIED AS TO THE CHARACTER, QUALITY, AND QUANTITIES OF WORK TO BE PERFORMED, MATERIALS TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE PROPOSED CONTRACT. THE SUBMISSION OF A PROPOSAL SHALL BE PRIMA FACIE EVIDENCE THAT THE BIDDER HAS MADE SUCH EXAMINATION AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED IN PERFORMING THE WORK AND AS TO THE REQUIREMENTS OF THE PROPOSED CONTRACT, PLANS, AND SPECIFICATIONS.

1.3 COPIES OF THE BORING LOGS AND LABORATORY TEST RESULTS PERFORMED ON SOIL SAMPLES OBTAINED FROM THE SOIL BORINGS ARE BEING PROVIDED FOR YOUR USE AND REFERENCE (REFER TO SPECIAL PROVISIONS SECTION OF SPECIFICATION). IT IS UNDERSTOOD AND AGREED THAT SUCH SUBSURFACE INFORMATION HAS BEEN MADE AVAILABLE FOR THE CONVENIENCE OF ALL BIDDERS. IT IS FURTHER UNDERSTOOD AND AGREED THAT EACH BIDDER IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTION, OR CONCLUSIONS WHICH THEY MAY MAKE OR OBTAIN FROM THEIR EXAMINATION OF THE BORING LOGS AND OTHER RECORDS OF SUBSURFACE INVESTIGATIONS AND TESTS THAT ARE FURNISHED BY THE OWNER.

1.4 THIS IS A UNIT PRICE PROJECT. REFER TO TECHNICAL SPECIFICATIONS FOR THE METHOD OF MEASUREMENT AND PAYMENT FOR INDIVIDUAL WORK ITEMS. ITEMS OF WORK REQUIRED BUT NOT COVERED BY SPECIFICATION SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.

2. AIRPORT OPERATIONS COORDINATION

2.1 THE OWNER WILL DESIGNATE AN AIRPORT OPERATIONS MANAGER. THE AIRPORT OPERATIONAL MANAGER SHALL HAVE THE SOLE AUTHORITY TO OPEN AND CLOSE FACILITIES, ISSUE AND CANCEL NOTAMS, AND TO COORDINATE WITH AIRPORT USERS.

2.2 THERE MAY BE MULTIPLE AIRFIELD CONSTRUCTION PROJECTS OCCURRING CONCURRENTLY. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING ALL WORK FOR THIS PROJECT WITH OTHER CONTRACTORS TO MINIMIZE IMPACTS TO AIRPORT OPERATIONS

3. AIRPORT SECURITY

3.1 PORTIONS OF THIS PROJECT ARE INSIDE AND OUTSIDE THE SECURED AIRSIDE OF THE AIRPORT.REVIEW CONSTRUCTION SAFETY AND PHASING PLANS FOR ADDITIONAL DETAILS.

3.2 THE CONTRACTOR SHALL COMPLY WITH ALL AIRPORT SECURITY REQUIREMENTS. THIS INCLUDES BUT IS NOT LIMITED TO; AIRPORT IDENTIFICATION BADGES FOR EMPLOYEES, CONTROL OF ACCESS (GATES) ENTERING THE SECURE AREA (GATE GUARDS), RESTRICTING MOVEMENT WITHIN THE RESTRICTED AREA TO APPROVED HAUL ROUTES AND WORK AREAS, PROVIDING ESCORTS, CROSSING GUARDS, AND MEETING ALL AIRPORT SECURITY REQUIREMENTS AND PROTOCOLS.

3.3 THE FAA CAN IMPOSE FINES OF $10,000 OR MORE FOR SECURITY VIOLATIONS AND INCURSIONS INTO ACTIVE AIRCRAFT OPERATION AREAS. THE CONTRACTOR SHALL PAY ALL FINES ASSESSED AGAINST THE AIRPORT DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR AND HIS/HER PERSONNEL, SUBCONTRACTORS AND VENDORS.

3.5 THE GATE GUARD SHALL DOCUMENT THE NAME, PURPOSE AND TIME OF VEHICLES ENTERING AND THE TIME OF THEIR DEPARTURE FROM THE SECURED AREA. WHEN NOT IN ACTUAL USE, ACCESS GATE(S) SHALL BE CLOSED AND LOCKED.

3.5 CONTRACTOR SHALL INSTRUCT SUPPLIERS, AND SUBCONTRACTORS ON ACCESS PROCEDURES TO BE FOLLOWED.

3.6 ALL SECURITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, TSA, AND THE FAA. SEE CONSTRUCTION SAFETY AND PHASING PLAN.

4. AIRPORT OPERATIONS AND SAFETY REQUIREMENTS

4.1 THE CONTRACTOR SHALL CONDUCT THEIR OPREATIONS SO AS TO AFFORD COMPLETE UNRESTRICTED ACCESS BY EMERGENCY EQUIPMENT AND PERSONNEL AT ALL TIMES.

4.2 NORMAL AIRPORT OPERATIONS WILL BE CONDUCTED DURING CONSTRUCTION. THE CONTRACTORS WORK SHALL BE CARRIED ON IN SUCH A MANNER AS NOT TO INTERFERE WITH AIRPORT OPERATIONS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS THEIR OWN EQUIPMENT AND PERSONNEL.

4.3 THE CONTRACTOR SHALL FOLLOW THE CSPP DEVELOPED FROM FAA ADVISORY CIRCULAR 150/5370-2 “OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION”, LATEST VERSION, THE REQUIREMENTS SET FORTH IN THE PROJECT'S FAA APPROVED CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) AND THE CONTRACTOR'S APPROVED SAFETY PLAN COMPLIANCE DOCUMENT (SPCD).

4.4 DEVIATIONS FROM THE CSPP WILL REQUIRE A REVISION TO THE CSPP SUBJECT TO THE OWNER, FAA AND MASSDOT AERONAUTICS DIVISION APPROVAL. THE CONTRACTOR IS ADVISED THAT APPROVALS FROM THE FAA IN REGARD TO CSPP REVISIONS CAN TAKE A SIGNIFICATE AMOUNT OF TIME WHICH MAY EFFECT THE PROJECT SCHEDULE. IF A REVISION TO THE CSPP IS REQUESTED BY THE CONTRACTOR, NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

4.5 PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD). THE SPCD WILL DETAIL HOW THE CSPP WILL BE COMPILED TO. WITHIN THE SPCD THE CONTRACTOR SHALL PROVIDE DETAILS INCLUDING BUT NOT LIMITED TO CONTACT NAMES AND NUMBERS, BARRICADES PROPOSED, RUNWAY CLOSED MARKERS PROPOSED, HAUL ROUTES TO WORK AREAS, COMMUNICATION PLAN, FUELING OF EQUIPMENT, FOREIGN OBJECT DEBRIS (FOD), DUST CONTROL, VERIFICATION OF HEIGHT RESTRICTION ON STOCKPILES AND EQUIPMENT, AND OTHER SAFETY PROCEDURES. APPROVAL OF THE SPCD BY THE OWNER AND ENGINEER WILL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION.

4.6 WHEN EQUIPMENT IS NOT ACTIVELY IN USE, IT SHALL BE RETURNED TO THE CONSTRUCTION STAGING AREA OR PARK IN AN AREA(S) APPROVED BY AIRPORT OPERATIONS AND THE RPR. ALL BOOMS SHALL BE LOWERED.

4.7 ALL CONTRACTOR VEHICLES SHALL HAVE THE COMPANY IDENTIFICATION PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE IN ORDER TO IDENTIFY THE VEHICLE AND A UNIQUE AND VISIBLE IDENTIFICATION NUMBER OR LETTER.

4.8 EACH CONTRACTOR'S MOTORIZED EQUIPMENT/VEHICLE OPERATING WITHIN THE AIRPORT SECURED AREA OR IN THE VICINITY OF AN ACTIVE RUNWAY APPROACH SHALL BE EQUIPPED WITH AN AMBER FLASHING LIGHT AND/OR A THREE FOOT (3’) SQUARE FLAG CONSISTING OF INTERNATIONAL ORANGE AND WHITE SQUARES NOT LESS THAN ONE FOOT (1’) DISPLAYED IN FULL VIEW ABOVE THE VEHICLE. ALL VECHICLES SHALL HAVE RELIABLE TWO-WAY RADIO COMMINICATION.

4.9 THE CONTRACTOR SHALL PROVIDE TWO (2) POINTS OF CONTACT TO THE AIRPORT AND RESIDENT PROJECT REPRESENTATIVE (RPR) THAT CAN BE CONTACTED AT ANY TIME (24/7).

5. EROSION CONTROL MEASURES AND STORMWATER POLLUTION PREVENTION PLAN

5.1 THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION CONTROL MEASURES IN ACCORDANCE WITH THE CONTRACT PLANS, APPLICABLE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES, BEST MANAGEMENT PRACTICES AND THE CSPP.

5.2 THE TEMPORARY EROSION CONTROL MEASURES SHOWN ON THE PLANS SHALL BE CONSIDERED THE MINIMAL PROTECTION REQUIRED. AS THE OWNER HAS NO CONTROL OVER MEANS AND METHODS OF THE CONTRACTOR, ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURE MAY BE REQUIRED. THESE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURE SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

5.3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AN IMPLEMENTATION OF AN CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND THE FILING OF THE USEPA NOTICE OF INTENT (NOI) FOR THE PROJECT. THE SWPPP SHALL BE PREPARED BY QUALIFIED PROFESSIONALS WITH EXPERIENCE IN SWPPP PREPARATION. THE PREPARED SWPPP SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO SUBMISSION.

5.4 THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT SWPPP INSPECTION FIRM TO CONDUCT ROUTINE AND STORM EVENT SITE INSPECTIONS FOR SWPPP COMPLIANCE. THE SWPPP INSPECTOR SHALL GENERATE WRITTEN REPORTS OF EVERY INSPECTION, NOTING AREAS OF CONCERNS AND PROVIDING MITIGATION RECOMMENDATION WHERE REQUIRED. COPIES OF THE REPORT SHALL BE FORWARDED TO THE RPR AND ENGINEER.

5.5 THE CONTRACTOR SHALL UNDERTAKE IMMEDIATE ACTION TO CORRECT ANY DEFICIENCIES AND AREAS OF CONCERN AS NOTED IN THE SWPPP REPORT OR AREAS OF DEFICIENCIES OR CONCERN AS NOTED BY THE RPR AT NO ADDITIONAL COST TO THE OWNER.

5.6 THE CONTRACTOR AS PREPARER OF THE SWPPP, IS SOLELY RESPONSIBLE FOR ITS PREPARATION AND IMPLEMENTATION. ANY AND ALL FINES ACCESS AGAINST THE AIRPORT BY REGULATORY AGENCIES FOR FAILURE TO PROPERLY DESIGN AND IMPLEMENT, OR CORRECT DEFICIENCIES RELATED TO THE SWPPP SHALL PAID FOR BY THE CONTRACTOR.

5.7 UPON COMPLETION OF THE INSTALLATION AND ACCEPTANCE OF PERMANENT EROSION CONTROL MEASURE, RESTORATION OF ALL DISTURBED AREAS AND SATISFACTORY ESTABLISHMENT OF TURF TO THE SATISFACTION OF THE OWNER AND RPR, THE CONTRACTOR SHALL FILE A NOTICE OF TERMINATION WITH THE USEPA FOR THE SWPPP.

6. UNDERGROUND UTILITIES AND CABLES

6.1 THE APPROXIMATE LOCATIONS OF KNOWN UTILITIES AND UNDERGROUND CABLE(S) ARE SHOWN ON THE CONTRACT DRAWINGS. THIS INFORMATION WAS OBTAINED FROM EXISTING PLANS AND RECORD DOCUMENTS. WHILE THIS INFORMATION IS BELIEVED TO BE CORRECT, NEITHER THE OWNER OR THE ENGINEER GUARANTEES ITS ACCURACY.

6.2 PRIOR TO COMMENCEMENT OF ANY EXCAVATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND IDENTIFY UNDERGROUND UTILITIES AND UNDERGROUND CABLE(S) IN THE WORK AREA(S). IF DISCREPANCY ARE FOUND BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE RPR/ENGINEER PRIOR TO EXCAVATION.

6.3 VERIFICATION OF UNDERGROUND UTILITIES AND UNDERGROUND CABLES SHALL BE MADE BY CONTACTING THE FOLLOWING:

- DIG SAFE/ON TARGET;
- NANTUCKET MEMORIAL AIRPORT - MAINTENANCE STAFF;
- FAA TECH OPS;
- NATIONAL WEATHER BUREAU;
- LOCAL POWER COMPANY;
- LOCAL WATER COMPANY;
- LOCAL GAS COMPANY;
- LOCAL CATV/INTERNET PROVIDER; and
- PRIVATE UTILITY LOCATOR.

6.4 IF DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR DISCOVERS ANY UTILITIES AND/OR CABLES NOT PREVIOUSLY IDENTIFIED, THE CONTRACTOR MUST STOP WORK AND CONTACT THE RPR IMMEDIATELY TO DETERMINE IF THE UTILITIES AND/OR CABLES ARE ACTIVE OR ABANDONED. NEVER ASSUME A CABLE(S) ARE DEAD OR NOT ENERGIZED. THE CONTRACTOR SHALL PROVIDE ALL INFORMATION ON THE UTILITY AND/OR CABLES TO THE OWNER SUCH THAT THE INFORMATION CAN BE ADEQUATELY RECORDED.

6.5 THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, ANY UNDERGROUND OR OVERHEAD CABLE(S) OR UTILITIES (WHETHER SHOWN ON THE CONTRACT DRAWINGS OR NOT) DAMAGED BY THEIR OPERATIONS INCLUDING ANY DAMAGE DONE BY DRIVING THEIR EQUIPMENT OVER EXISTING UNDERGROUND CABLE(S) OR UTILITIES. THE REPAIR OF FAA CABLE(S) AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE FAA AND THE EFFECTED UTILITY RESPECTIVELY.

6.5 THE CONTRACTOR SHALL SCHEDULE AND CONDUCT THEIR CONSTRUCTION ACTIVITIES SO NO UNAUTHORIZED DISRUPTION OR OUTAGE IN UNDERGROUND SERVICE WILL RESULT.

7. MINIMAL IMPACT TO AIRPORT OPERATION

7.1 THE CONTRACTORS WORK SHALL BE CARRIED ON IN SUCH A MANNER AS NOT TO INTERFERE WITH AIRPORT OPERATIONS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS THEIR OWN EQUIPMENT AND PERSONNEL.

7.2 REFER TO CSPP REQUIREMENTS.

8. OPEN TRENCHES OR EXCAVATIONS

8.1 THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE ANY TRENCHES OR OTHER EXCAVATIONS OPEN AT NIGHT, WEEKENDS, OR AT OTHER TIMES WHEN THE CONTRACTOR IS NOT ON THE WORK SITE, WITH OUT THE APPROVAL OF THE AIRPORT AND THE RPR.

8.2 NO EXCAVATIONS EXCEEDING 3 INCHES IN DEPTH SHALL BE LEFT OPEN WITHIN ACTIVE AIRCRAFT OPERATION AREAS, AS DESCRIBED IN THE CSPPP.

9. HAUL ROUTES

9.1 THE CONTRACTOR SHALL MAKE ALL IMPROVEMENTS AS DESIGNATED ON AIRPORT HAUL ROUTES SUBJECT TO THE APPROVAL OF THE OWNER AND RPR REQUIRED FOR THE SAFE TRANSIT OF CONSTRUCTION VEHICLES AND EQUIPMENT TO AND FROM THE WORK AREA(S) AT NO ADDITIONAL COST TO THE OWNER.

9.2 ANY EXISTING PAVEMENTS USED FOR HAUL ROUTES SHALL BE VIDEOED AND INSPECTED BY THE CONTRACTOR TO DOCUMENT PRE-CONSTRUCTION CONDITION. ALL IMPROVEMENTS TO PAVED SURFACE AND RESTORATION OF THE PAVED SURFACE TO EQUAL OR BETTER CONDITION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

9.3 THE CONTRACTOR SHALL DELINEATE ALL HAUL ROUTES WITH ANCHORED CHANNELIZER CONE OR OTHER MEANS THAT IS ACCEPTABLE TO THE RPR AT NO ADDITIONAL COST TO THE OWNER.

9.4 THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TRAFFIC CONTROL DEVICES INCLUDING BUT NOT LIMITED TO; STOP SIGNS, CONSTRUCTION ENTRANCE SIGN, INFORMATIONAL SIGN, SPEED LIMIT SIGN AND OTHER AT NO ADDITIONAL COST TO THE OWNER.

9.5 UNLESS OTHERWISE SPECIFIED ON THE PLANS THE SPEED LIMIT FOR THE PERIMETER ROAD IS 20 MPH MAXIMUM, THE SPEED LIMIT FOR THE EXISTING SOUTH APRON IS 15 MPH MAXIMUM, AND THE SPEED LIMIT IN CONGESTED AREAS IS 5 MPH MAXIMUM.

9.6 ALL VECHICLES EITHER ENTERING OR EXITING THE WORK SITE SHALL BE INSPECTED AND CLEANED/CLEARED OF FOREIGN OBJECT DEBRIS (FOD). THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AS DETAILED ON THE PLANS.

9.7 THE CONTRACTOR SHALL HAVE A WORKING POWER VACUUM SWEEPER ON THE SITE AT ALL TIMES TO SWEEP PAVEMENTS IN THE WORK AREAS AND HAUL ROUTES TO CONTINUALLY REMOVE FOD AND MATERIAL SPILLAGE. WHEN DIRECTED BY THE RPR, VACUUM SWEEPING SHALL COMMENCE WITHIN THIRTY (30) MINUTES. THE POWER VACUUM SWEEPER AND OPERATOR SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

9.8 THE CONTRACTOR SHALL HAVE ON SITE A WATER TRUCK FOR THE PURPOSE OF CONTROLLING DUST ON HAUL ROUTES. THE CONTRACTOR SHALL TAKE A PREVENTIVE APPROACH TO PREVENTING DUST BY KEEPING HAUL ROUTES MOIST AT ALL TIMES. WHEN DIRECTED BY THE RPR, DUST CONTROL MITIGATION SHALL COMMENCE WITHIN THIRTY (30) MINUTES. DUST CONTROL SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND BE PROVIDED AT NO ADDITIONAL COST.

9.9 WHERE PUBLIC ROADS ARE USED FOR HAUL ROUTES THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED, COMPLY WITH ALL LAWS, RULES, REGULATIONS AND ORDINANCES AS APPLICABLE AT NO ADDITIONAL COST TO THE OWNER.

10. SCHEDULES REQUIRED

10.1 IN ADDITION TO THE OVERALL SCHEDULE THE CONTRACTOR SHALL PROVIDE A WRITTEN TWO (2) WEEK LOOK AHEAD SCHEDULE. THE FIRST WEEK ON THE LOOK AHEAD SCHEDULE SHALL BE CONSIDERED THE MOST RIGID. THE OWNER RESERVES THE RIGHT TO DISALLOW WORK IF NOT ON THE CURRENT WEEK'S SCHEDULE AND IF PROPER COORDINATION HAS NOT TAKEN PLACE WITH THE AIRPORT STAKE HOLDERS. THE TWO WEEK LOOK AHEAD SCHEDULE SHALL BE UPDATED WEEKLY AND PRESENTED TO STAKE HOLDERS AT THE WEEKLY SCHEDULED JOB MEETING.

10.2 EACH MORNING A TAILGATE MEETING SHALL OCCUR BETWEEN THE CONTRACTOR, THE RPR AND THE OWNER'S PROJECT REPRESENTATIVE. THE INTENT OF THIS MEETING IS TO VERBALLY REVIEW THE WORK AND ACTIVITIES PROPOSED FOR THAT DAY.

11. CONTRACTORS STAGING AERA AND EMPLOYEE PARKING

11.1 THE CONTRACTOR SHALL USE THE AREA(S) SHOWN ON THE PLANS FOR THEIR STAGING AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL IMPROVEMENTS AND RESTORATION OF THE DESIGNATED AREA(S), SUCH AS CLEARING AND GRUBBING, GRADING, AND CONSTRUCTION OF GRAVEL ACCESS ROADS AND STORAGE AREAS, SECURITY FENCING AND OTHER WORK THAT ARE NECESSARY FOR THE UTILIZATION OF THE AREA AT NO ADDITIONAL COST TO THE OWNER.

11.2 THE CONTRACTOR IS RESPONSIBLE FOR ALL TRASH PICK UP GENERATED BY THE PROJECT. TRASH RECEPTACLES SHALL BE COVERED AND SECURED.

11.3 RESTROOMS FACILITIES ARE TO BE PROVIDED AND MAINTAINED BY THE CONTRACTOR WITHIN THE STAGING AREAS AND WITHIN THE ACTIVE WORK AERAS WITH THE PERMISSION OF THE OWNER.

11.4 AT THE COMPLETION OF THE PROJECT, THE STAGING AREA SHALL BE RESTORED TO A CONDITION EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.

11.5 CONTRACTOR EMPLOYEES SHALL PARK CARS WITHIN THE CONTRACTOR STAGING AREA.

12. CONSTRUCTION LAYOUT AND ASSISTANCE TO THE RPR

12.1 THE ENGINEER SHALL PROVIDE BOTH HORIZONTAL AND VERTICAL CONTROL POINTS FOR USE BY THE CONTRACTOR. PRIOR TO LAYOUT, THE CONTRACTOR SHALL INVERSE BETWEEN THESE POINTS AND SATISFY TO THEMSELVES AS TO THE ACCURACY OF THE CONTROL POINTS PROVIDED. THE LAYOUT FOR CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

12.2 THE CONTRACTOR SHALL FURNISH ASSISTANCE TO THE ENGINEER AS REQUESTED TO CHECK THE LAYOUT OR WORK IN PROGRESS. SUCH ASSISTANCE SHALL BE UNDERSTOOD TO INCLUDE THE PROVISION OF SUITABLE MANPOWER TO ASSIST THE ENGINEER IN TAPING MEASUREMENTS, SURVEY FOR CHECKING GRADES AND THE LIKE. THE CONTRACTOR'S OBLIGATIONS FOR LAYOUT, SURVEY AND FURNISHING ASSISTANCE TO THE ENGINEER SHALL BE DEEMED INCIDENTAL TO THE COMPLETION OF VARIOUS WORK ITEMS AND NO SEPARATE PAYMENT WILL BE MADE FOR SUCH LAYOUT, SURVEY AND ASSISTANCE.

13. CONTRACTOR QUALITY CONTROL.

13.1 THE CONTRACTOR SHALL ESTABLISH A QUALITY CONTROL PROGRAM TO PERFORM INSPECTION AND TESTING OF ALL ITEMS OF WORK REQUIRED BY TECHNICAL SPECIFICATIONS, INCLUDING THOSE PERFORMED BY THE SUBCONTRACTORS. THIS QUALITY CONTROL PROGRAM SHALL ENSURE CONFORMANCE TO APPLICABLE SPECIFICATION AND PLANS WITH RESPECT TO MATERIALS, WORKMANSHIP, CONSTRUCTION, FINISH, AND FUNCTIONAL PERFORMANCE. THE QUALITY CONTROL PROGRAM SHALL BE EFFECTIVE FOR CONTROL OF ALL CONSTRUCTION WORK PERFORMED UNDER THIS CONTRACT AND SHALL SPECIFICALLY INCLUDE SURVEILLANCE AND TESTS REQUIRED BY THE TECHNICAL SPECIFICATIONS, IN ADDITION TO OTHER REQUIREMENTS OF THIS SECTION AND ANY OTHER ACTIVITIES DEEMED NECESSARY BY THE CONTRACTOR TO ESTABLISH AN EFFECTIVE LEVEL OF QUALITY CONTROL. REFER TO TECHINICAL SPECIFICATION SECTION C-100 FOR REQUIREMENTS.

14. DISPOSAL OF SURPLUS EXCAVATED SOILS

14.1 ALL UNSUITABLE EXCAVATION MATERIAL, ALL UTILITY (WATER, SEWER, TEL/DATA, & DRAINAGE) STRUCTURES AND PIPES, ALL BITUMINOUS CONCRETE PAVEMENT, ALL PORTLAND CEMENT CONCRETE PAVEMENT, AND ALL CONDUIT AND ELECTRICAL WIRE SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY UNLESS SPECIFIC INSTRUCTIONS TO THE CONTRARY ARE INCLUDED IN THE SPECIFICATIONS OR NOTED ON THE PLANS.

14.2 SUITABLE EXCAVATED MATERIAL AND ASPHALT MILLINGS SHALL BE UTILIZED ON SITE OR DISPOSED OF IN DESIGNATED DISPOSAL SITES ON AIRPORT PROPERTY. THE HEIGHTS OF PILES SHALL NOT PENETRATE ANY PROTECTED AIR SPACE. SEPARATE DISPOSAL SITES WILL BE MADE AVAILABLE FOR SURPLUS MATERIAL CONTAINING ELEVATED LEVELS OF PFAS AND LOW LEVELS OF PFAS. PFAS TESTING AND DETERMINATION OF PFAS LEVELS WILL BE PERFORMED BY OTHERS. DISPOSING OF SURPLUS SUITABLE MATERIAL IN DISPOSAL SITES SHALL BE CONSIDERED INCIDENTAL TO THE EXCAVATION OF THE MATERIAL.

14.2 THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE DISPOSAL OF UNSUITABLE MATERIALS OFF AIRPORT PROPERTY AT NO ADDITIONAL COST TO THE OWNER. AT THE OWNERS OR RPR REQUEST, COPIES OF DOCUMENTATION DETAILING THE LAWFUL DISPOSAL OF MATERIALS OFF AIRPORT PROPERTY SHALL BE PROVIDED.

15. ENVIRONMENTAL PROTECTIONS AND REQUIREMENTS.

15.1 THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS AND ORDINANCES IN REGARD TO THE PROTECTION OF THE ENVIRONMENT AND NATURAL RESOURCES. THE CONTRACTOR SHALL PAY ALL FINES ASSESSED AGAINST THE AIRPORT AND RELATED EXPENSES DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR AND THEIR PERSONNEL, SUBCONTRACTORS, AND VENDORS.

15.2 THE CONTRACTOR SHALL LIMIT GROUND DISTURBANCE TO THE AREA WITHIN THE LIMITS OF REGRADING, HAUL ROUTES, STAGING AREA(S) AND SURPLUS MATERIAL DISPOSAL SITES. ANY INADVERTENT GROUND DISTURBANCE BEYOND THE PROJECTS LIMITS CAUSED BY THE CONTRACTOR AND THEIR PERSONNEL, SUBCONTRACTORS, AND VENDORS SHALL BE REPORTED TO THE ENGINEER.

15.3 PRIOR TO ANY EXCAVATION IN EXISTING TURF AREAS, THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT'S BOTANIST TO INSPECT THE AREA OF PROPOSED EXCAVATION FOR THE PRESENCE OF THREATENED OR ENDANGERED PLANTS AND GRASS SPECIES. IF THREATENED OR ENDANGERED SPECIES ARE FOUND WITHIN THE LIMITS OF EXCAVATION, THE PLANTS AND GRASSES SHALL BE REMOVED AND TRANSPLANTED IN AREA(S) DESIGNATED BY THE AIRPORT.

15.4 MATERIALS AND EQUIPMENT USED ON THIS PROJECT SHALL BE CLEANED PRIOR TO SITE WORK TO MINIMIZE THE SPREADING OF INVASIVE SPECIES.

15.5 IF OFFSITE TOPSOIL IS REQUIRED, THE CONTRACTOR SHALL REVIEW WITH THE ENGINEER THE SOURCE OF THE TOPSOIL AND PROVIDE THE OPPORTUNITY FOR THE ENGINEER TO INSPECT THE TOPSOIL (PREFERABLE PRIOR TO STRIPPING) TO MINIMIZE THE SPREADING OF INVASIVE SPECIES.

15.6 THE AIRPORT DOES HAVE AREAS OF KNOWN ELEVATED LEVELS OF POLYFLUOROALKL SUBSTANCES (PFAS) CONTAMINATION. PRIOR TO EXCAVATION THE AIRPORT WILL TEST THE SOIL AND DETERMINE THE LEVELS OF PFAS PRESENT IN THE SOILS. IF LOW LEVELS ARE DETECTED, THE SUITABLE SURPLUS MATERIAL WILL BE DISPOSED IN THE NON-PFAS DISPOSAL SITE. SOILS DETERMINED TO HAVE HIGH LEVELS OF PFAS SHALL BE DISPOSED IN THE PFAS DISPOSAL SITE.

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT

PROJECT: SOUTH APRON EXPANSION

NANTUCKET, MASSACHUSETTS

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	NTS
DATE	MAY 2023
PROJECT	18706.07

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DRAWING TITLE

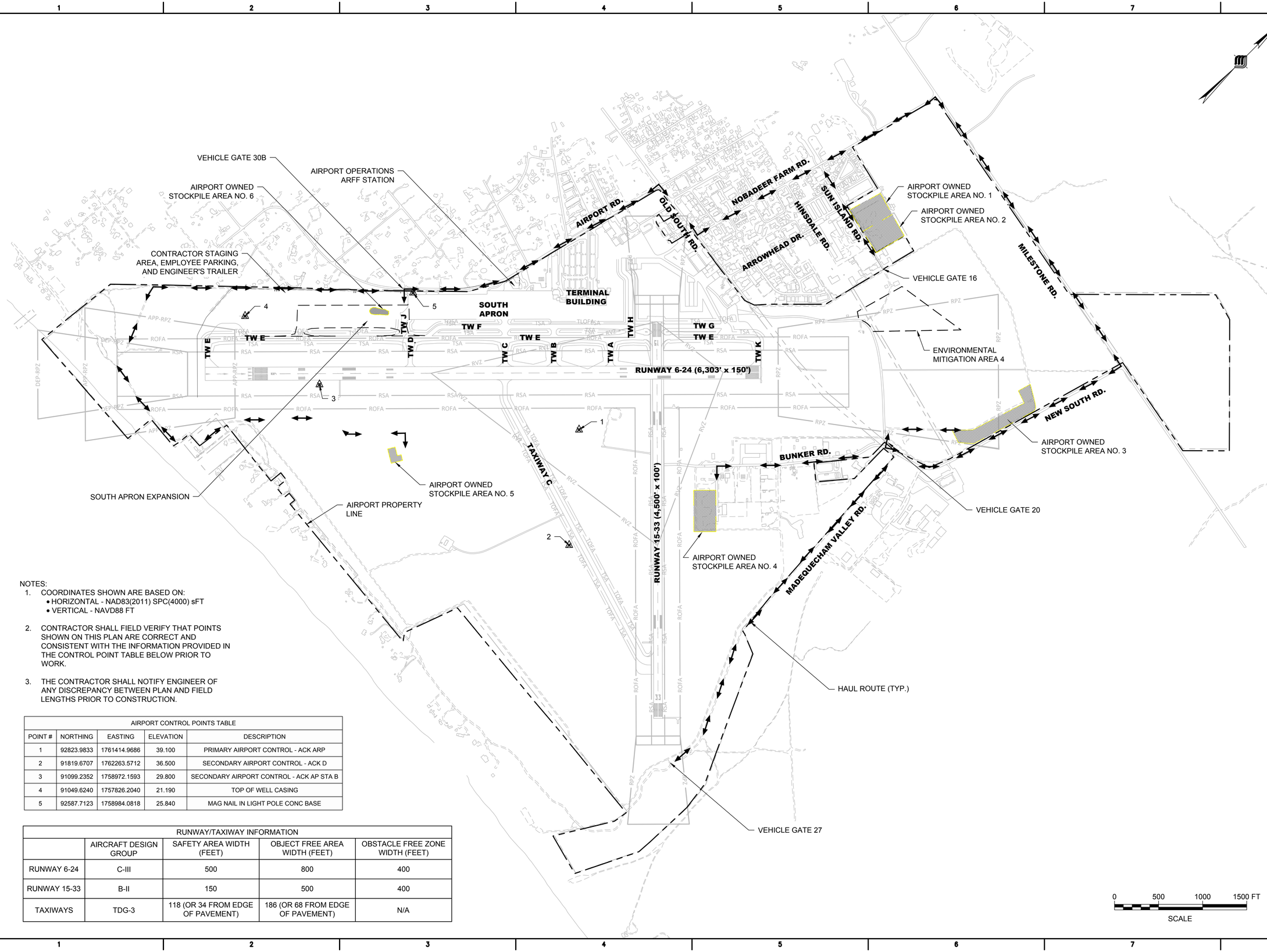
GENERAL NOTES

DRAWING NUMBER

GN-02

4 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-NOTE.DWG



NOTES:

1. COORDINATES SHOWN ARE BASED ON:
   - HORIZONTAL - NAD83(2011) SPC(4000) sFT
   - VERTICAL - NAVD88 FT
2. CONTRACTOR SHALL FIELD VERIFY THAT POINTS SHOWN ON THIS PLAN ARE CORRECT AND CONSISTENT WITH THE INFORMATION PROVIDED IN THE CONTROL POINT TABLE BELOW PRIOR TO WORK.
3. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCY BETWEEN PLAN AND FIELD LENGTHS PRIOR TO CONSTRUCTION.

AIRPORT CONTROL POINTS TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	92823.9833	1761414.9686	39.100	PRIMARY AIRPORT CONTROL - ACK ARP
2	91819.6707	1762263.5712	36.500	SECONDARY AIRPORT CONTROL - ACK D
3	91099.2352	1758972.1593	29.800	SECONDARY AIRPORT CONTROL - ACK AP STA B
4	91049.6240	1757826.2040	21.190	TOP OF WELL CASING
5	92587.7123	1758984.0818	25.840	MAG NAIL IN LIGHT POLE CONC BASE

RUNWAY/TAXIWAY INFORMATION

	AIRCRAFT DESIGN GROUP	SAFETY AREA WIDTH (FEET)	OBJECT FREE AREA WIDTH (FEET)	OBSTACLE FREE ZONE WIDTH (FEET)
RUNWAY 6-24	C-III	500	800	400
RUNWAY 15-33	B-II	150	500	400
TAXIWAYS	TDG-3	118 (OR 34 FROM EDGE OF PAVEMENT)	186 (OR 68 FROM EDGE OF PAVEMENT)	N/A

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=500'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

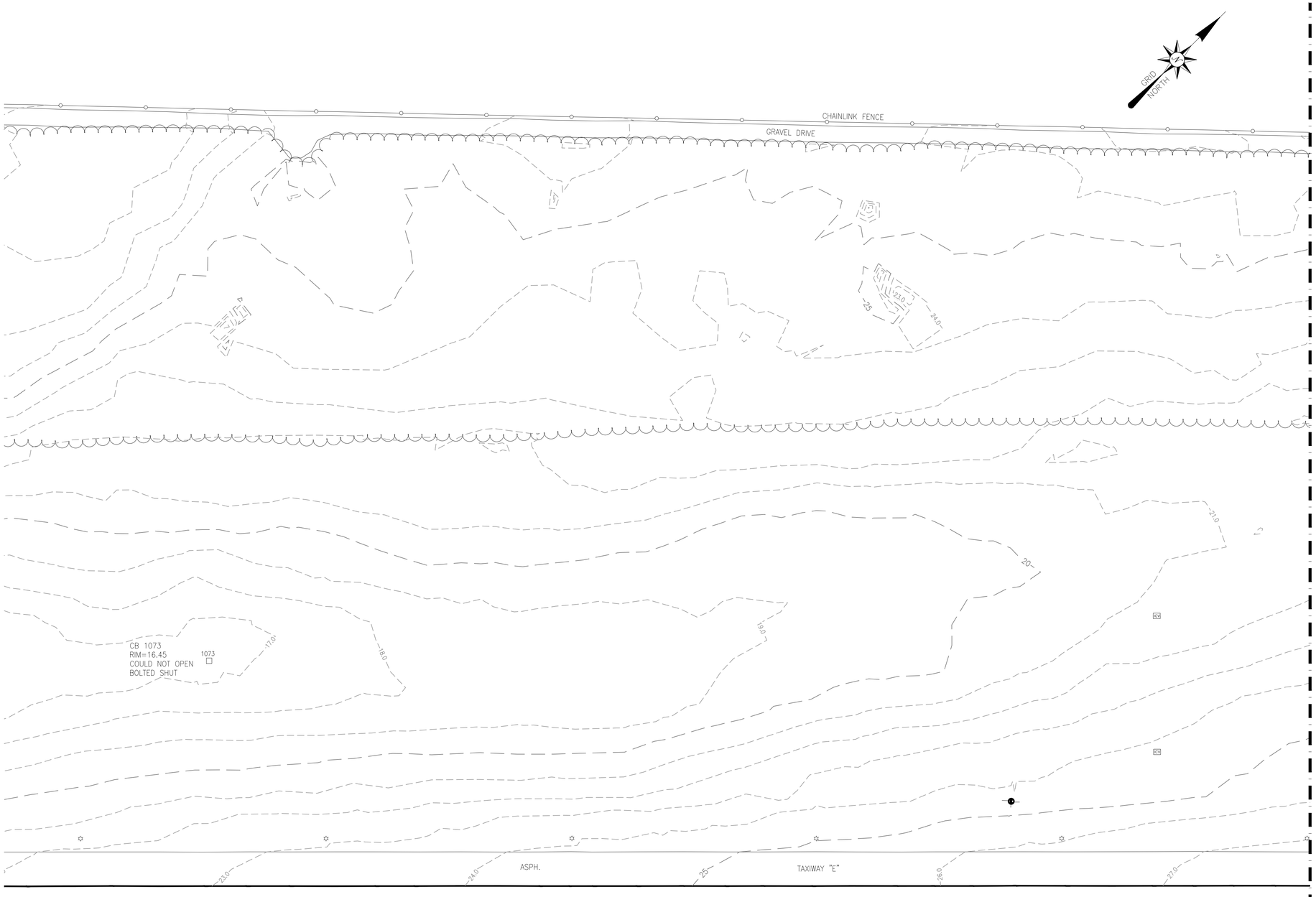
GENERAL PLAN AND AIRFIELD SURVEY CONTROL

DRAWING NUMBER

GN-03

5 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-GEN.DWG



LEGEND

- AIRPORT EDGE/MARKER LIGHT
- IRRIGATION VALVE
- TIE-DOWN ANCHOR
- ELECTRIC MANHOLE
- 1000 CATCH BASIN
- 1001 DRAIN MANHOLE
- UTILITY HANDHOLE
- METAL COVER
- AIRPORT SIGN
- EDGE OF PAVEMENT
- EDGE OF CONCRETE
- PAVEMENT MARKINGS
- MINOR CONTOUR
- MAJOR CONTOUR
- AIRPORT SIGN WITH CONCRETE BASE
- TREELINE
- CHAINLINK FENCE

SURVEY NOTES:

1. This survey is the result of an actual on-the-ground survey by this office using Leica TS-12 3" robotic total stations and Trimble R12 GNSS/GPS receivers completed between May 15 and May 18, 2023. Primary control traverse error of closure better than 1:15,000.
2. Horizontal and vertical datum based on ACK Geodetic Control, PAC & SAC points.
3. Underground utilities are shown as approximate and based on above ground features, field measurements without the benefit of ingress into structures, and record plans. Assumptions were made to draw the underground drain lines where they're shown. Not all utilities are shown.
4. Four of the irrigation control valves shown on this survey are shown as approximate and were discovered buried in the turf by the Engineer during plan check.
5. The nearest 911 address to the site is 14 Airport Road, Nantucket, MA 02554.

REVISIONS	

GRAPHIC SCALE 1"= 40

0 40' 80' 120'

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. LASORSA
No. 35805
REGISTERED PROFESSIONAL ENGINEER

TOPOGRAPHIC WORKSHEET
of portions of
TAXIWAY E and PARKING
NANTUCKET MEMORIAL AIRPORT
prepared for
McFARLAND-JOHNSON, INC.

JOB NO.: 41088.00	GM2 Associates, Inc. 197 Loudon Road, Suite 310 Concord, NH 03301 Tel: 603-856-7854 Fax: 603-856-7855
SCALE: 1"= 40	
DATE: JUNE 8, 2023	
SHEET NO. 1 OF 2	

REVISIONS	

GRAPHIC SCALE 1"= 40

0 40' 80' 120'

"CHARD A. LASORN" LNH No. 9860S REGISTERED PROFESSIONAL ENGINEER

TOPOGRAPHIC WORKSHEET
of portions of
TAXIWAY E and PARKING
NANTUCKET MEMORIAL AIRPORT
prepared for
McFARLAND-JOHNSON, INC.

JOB NO.: 41088.00	GM2 Associates, Inc. 197 Loudon Road, Suite 310 Concord, NH 03301 Tel: 603-856-7854 Fax: 603-856-7855
SCALE: 1"= 40	
DATE: JUNE 8, 2023	
SHEET NO. 2 OF 2	

CONTRACT TIME (BASE BID) = 120 DAYS

CONTRACT TIME (BASE BID + ADD ALT 1) = 120 DAYS

CONTRACT TIME (BASE BID + ADD ALT 1 + ADD ALT 2) = 150 DAYS

TOWER/GROUND = 118.3/122.95

TOWER OPEN 6 AM TO 10 PM MAY 15 - SEP 30
TOWER OPEN 6AM TO 9 PM OCT 1 - MAY 14

CONTRACTOR ACCESS THROUGH GATE 30B FOR WORK AREAS 2, 3, AND 5. CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

INSTALL CONSTRUCTION ENTRANCE PER DETAIL, SHEET CS-11 (ITEM C-102-5.1C)

STOCKPILE AREA NO. 6 (MAXIMUM HEIGHT 25')

WORK AREA 1A. SEE DETAIL , SHEET CS-02 FOR DETAILS

CONTRACTOR STAGING AREA, EMPLOYEE PARKING, AND ENGINEER'S TRAILER

WORK AREA1B. SEE DETAIL , SHEET CS-02 FOR DETAILS

AIRPORT OWNED STOCKPILE AREA NO. 5 (MAXIMUM HEIGHT 35')

AIRPORT PROPERTY LINE

CONTRACTOR SHALL PROVIDE VACUUM POWERED SWEEPER AND DEDICATED OPERATOR DURING DURATION OF WORK (INCIDENTAL TO ITEM M-120-1)

CONTRACTOR SHALL PROTECT EXISTING PAVEMENT AND PAVEMENT MARKINGS. ANY PAVEMENT OR PAVEMENT MARKINGS DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER (TYP.) (INCIDENTAL TO M-120-1)

CONTRACTOR ACCESS THROUGH GATE 27 FOR WORK AREA 4. CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

INSTALL CONSTRUCTION ENTRANCE PER DETAIL, SHEET CS-11 (ITEM C-102-5.1C)

CONTRACTOR ACCESS THROUGH GATE 20 FOR ACCESS TO STOCKPILE AREA NO. 3. CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

INSTALL CONSTRUCTION ENTRANCE PER DETAIL, SHEET CS-11 (ITEM C-102-5.1C)

AIRPORT OWNED STOCKPILE AREA NO. 4 (MAXIMUM HEIGHT 15')

INSTALL CONSTRUCTION ENTRANCE PER DETAIL, SHEET CS-11 (ITEM C-102-5.1C)

AIRPORT OWNED STOCKPILE AREA NO. 1 (MAXIMUM HEIGHT 50')

AIRPORT OWNED STOCKPILE AREA NO. 2 (MAXIMUM HEIGHT 50')

AIRPORT OWNED STOCKPILE AREA NO.3 (MAXIMUM HEIGHT 30')

AIRPORT RD.
NOBADEER FARM RD.
OLD SOUTH RD
ARROWHEAD DR.
HINSDALE RD.
SUN ISLAND RD.
NEW SOUTH RD.
BUNKER RD.
MADEQUECHAM VALLEY RD.
TAXIWAY C
RUNWAY 6-24 (6,303' x 150')
RUNWAY 15-33 (4,500' x 100')
ARFF BUILDING
TERMINAL BUILDING
SOUTH APRON
TW E
TW F
TW G
TW H
TW J
TW L
TW A
TW B
TW C
TW K
2A
2B
2C
2D
3
4
5
6

0 400 800 1200 FT
SCALE

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- EDGE OF NEW PAVEMENT
- LOD — LIMITS OF DISTURBANCE
- STOCKPILE
- WORK AREA 2A
- WORK AREA 2B
- WORK AREA 2C
- WORK AREA 2D
- WORK AREA 3
- WORK AREA 4
- WORK AREA 5
- WORK AREA 6
- FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)
- VACUUM SWEEPER (INCIDENTAL TO ITEM M-120-1)

WORK AREAS THAT MAY BE PERFOMED CONCURRENTLY

	1A	1B	2A	2B	2C	2D	3A	3B	3C	3D	3E	3F	3G	4	5A	5B	6
1A		1					X	X	X	X	X	X	X	X			X
1B	X						X	X	X	X	X	X	X	X			X
2A					X	X	X	X	X	X	X	X	X	X	X	X	
2B			X		X	X	X	X	X	X	X	X	X	X	X	X	
2C			X	X			X	X	X	X	X	X	X	X	X	X	
2D			X	X			X	X	X	X	X	X	X	X	X	X	
3A	X	X	X	X	X	X								X	X	X	X
3B	X	X	X	X	X	X								X	X	X	X
3C	X	X	X	X	X	X								X	X	X	X
3D	X	X	X	X	X	X								X	X	X	X
3E	X	X	X	X	X	X								X	X	X	X
3F	X	X	X	X	X	X								X	X	X	X
3G	X	X	X	X	X	X								X	X	X	X
4	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
5A			X	X	X	X	X	X	X	X	X	X	X	X			
5B			X	X	X	X	X	X	X	X	X	X	X	X			
6	X	X					X	X	X	X	X	X	X	X			

PHASING NOTES:

1. SEE SHEET CS-11 FOR ADDITIONAL DETAILS ON WORK AREAS AND PHASING SEQUENCING.
2. CONTRACTOR SHALL COVER GUIDANCE SIGNS DIRECTING TRAFFIC ONTO CLOSED PAVEMENTS (INCIDENTAL TO ITEM M-120-1).
3. CONTRACTOR SHALL REESTABLISH A WORKING SYSTEM WHEN LIGHTS, SIGNS AND EQUIPMENT ARE RE-ENGAGED (INCIDENTAL TO ITEM M-120-1).
4. CONTRACTOR SHALL PROTECT NECESSARY CABLES AND CONNECTORS TO MAINTAIN CIRCUITRY DURING CLOSURES AT NO ADDITIONAL COST TO OWNER (INCIDENTAL TO ITEM M-120-1).
5. CONTRACTOR SHALL MAINTAIN A WORKING EDGE LIGHT SYSTEM ON OPEN PAVEMENT (INCIDENTAL TO ITEM M-120-1).
6. CONTRACTORS ESCORT SHALL REMAIN IN VISUAL AND VERBAL CONTROL OF CONSTRUCTION CREW AT ALL TIMES.
7. CONTRACTOR SHALL COMMUNICATE WITH ESCORT PRIOR TO CROSSING ANY AREAS OPEN TO AIRCRAFT OPERATIONS.
8. CONTRACTOR SHALL PROVIDE VACUUM SWEEPER TO REMOVE CONSTRUCTION DEBRIS FROM TAXIWAYS (INCIDENTAL TO ITEM M-120-1).
9. SWEEPER SHALL BE PARKED OUTSIDE MOVEMENT AREAS WHEN NOT IN USE.
10. CONTRACTOR SHALL ENSURE FIVE-FOOT CLEARANCE IS MAINTAINED BETWEEN EQUIPMENT AND MATERIALS AND ANY PART OF ANY AIRCRAFT. IF CLEARANCE CANNOT BE MAINTAINED, IT WILL BE NECESSARY TO MOVE PERSONNEL AND EQUIPMENT FOR PASSAGE OF AIRCRAFT.
11. ENGINEER TO APPROVE LOCATION OF STABILIZED CONSTRUCTION ENTRANCE PRIOR TO INSTALLATION.
12. NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY EXCEPT IN AREA 2B. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON). NO CLEARING AND GRUBBING OR REMOVAL OF TREES SHALL BE PERMITTED BETWEEN APRIL 15 AND OCTOBER 31.
13. THE CONTRACTOR SHALL INSTALL AND/OR RELOCATE TEMPORARY JUMPERS AS NEEDED TO MAINTAIN EXISTING CIRCUITS. ALL MATERIALS AND LABOR ASSOCIATED WITH TEMPORARY JUMPERS SHALL BE INCIDENTAL TO ITEM M-120-1.

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=400'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

CONSTRUCTION SAFETY AND PHASING PLAN

DRAWING NUMBER

CS-01

8 OF 72

K:\NANTUCKET\T-18706.07-ACK SOUTH APRON EXPANSION\DRAW\DRAWING\SHEET FILES\18706.07-CSPP.DWG

CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

CONTRACTOR SHALL MAINTAIN CONDITION AND ACCESS TO EXISTING VEHICLE SERVICE ROAD FOR DURATION OF PROJECT. VEHICLE SERVICE ROAD SHALL BE ACCESSIBLE AND TRAVERSABLE AT ALL TIMES (INCIDENTAL TO ITEM M-120-1)

TIE DOWN INACCESSIBLE FOR DURATION OF WORK AREA 1B

AIRPORT PROPERTY LINE

NO CLEARING AND GRUBBING OR REMOVAL OF TREES SHALL BE PERMITTED BETWEEN APRIL 15 AND OCTOBER 31

CONTRACTOR SHALL PROVIDE VACUUM POWERED SWEEPER AND DEDICATED OPERATOR DURING DURATION OF WORK (INCIDENTAL TO ITEM M-120-1)

STOCKPILE AREA NO.6 (MAXIMUM HEIGHT 25')

EXISTING SOUTH APRON

1A

1B

TAXIWAY L

TAXIWAY J

TAXIWAY F

TAXIWAY E

TAXIWAY D

RUNWAY 6-24

WORK AREAS 1A AND 1B SEPARATED BY TAXIWAY J TOFA

EDGE OF NEW PAVEMENT (TYP.)

CONTRACTOR SHALL OBSCURE LIGHTS WITHIN CLOSED AREA PER DETAIL ON SHEET CS-11 (INCIDENTAL TO ITEM M-120-1)

PLACE WORK AREA 1A BARRICADE (TYP.) SEE DETAIL, SHEET CS-11 (INCIDENTAL TO ITEM M-120-1)

PLACE WORK AREA 1B BARRICADE (TYP.) SEE DETAIL, SHEET CS-11 (INCIDENTAL TO ITEM M-120-1)

THE CONTRACTOR SHALL MAINTAIN THE EXISTING TAXIWAY E CIRCUIT DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL TEMPORARY JUMPERS AS DIRECTED BY THE AIRPORT AND THE RPR. ALL MATERIALS AND LABOR ASSOCIATED WITH TEMPORARY JUMPERS SHALL BE INCIDENTAL TO ITEM M-120-1

THE CONTRACTOR SHALL MAINTAIN THE EXISTING TAXIWAY E CIRCUIT DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL TEMPORARY JUMPERS AS DIRECTED BY THE AIRPORT AND THE RPR. ALL MATERIALS AND LABOR ASSOCIATED WITH TEMPORARY JUMPERS SHALL BE INCIDENTAL TO ITEM M-120-1

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- EDGE OF NEW PAVEMENT
- LOD — LIMITS OF DISTURBANCE
- TEMPORARY FENCE WITH DRIVEN POST (ITEM F-162-4A)
- TEMPORARY FENCE ON BARRICADE (ITEM F-162-4B)
- WORK AREA 1A/1B
- VACUUM SWEEPER (INCIDENTAL TO ITEM M-120-1)
- FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)
- WORK AREA 1A BARRICADE (INCIDENTAL TO ITEM M-120-1)
- WORK AREA 1B BARRICADE (INCIDENTAL TO ITEM M-120-1)
- INACCESSIBLE TIEDOWN
- HAUL ROUTE (TYP.)

WORK AREA 1A SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN.

WORK AREA 1A: 30 CALENDAR DAYS

CLOSURES:
- TAXIWAY E BETWEEN TAXIWAY D AND TAXIWAY E RUN-UP PAD

WORK TO BE COMPLETED:
- INSTALLATION OF STORM WATER INFILTRATION SYSTEM
- CLEARING AND GRUBBING WITHIN WORK AREA

WORK LIMITATIONS
- NO CLEARING AND GRUBBING OR REMOVAL OF TREES SHALL BE PERMITTED BETWEEN APRIL 15 AND OCTOBER 31.

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

WORK AREA 1B SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN.

WORK AREA 1B: 5 CALENDAR DAYS

CLOSURES:
- TAXIWAY J
- TIE DOWNS (PERMANENT)

WORK TO BE COMPLETED:
- DEMOLITION OF EXISTING DRAINAGE STRUCTURES AND IRRIGATION CONTROL VALVES
- REMOVAL OF TIE DOWNS
- INSTALLATION OF DRAINAGE INFRASTRUCTURE
- PAVEMENT REPAIR
- TURF RESTORATION

WORK LIMITATIONS
- NONE

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 100 200 300 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

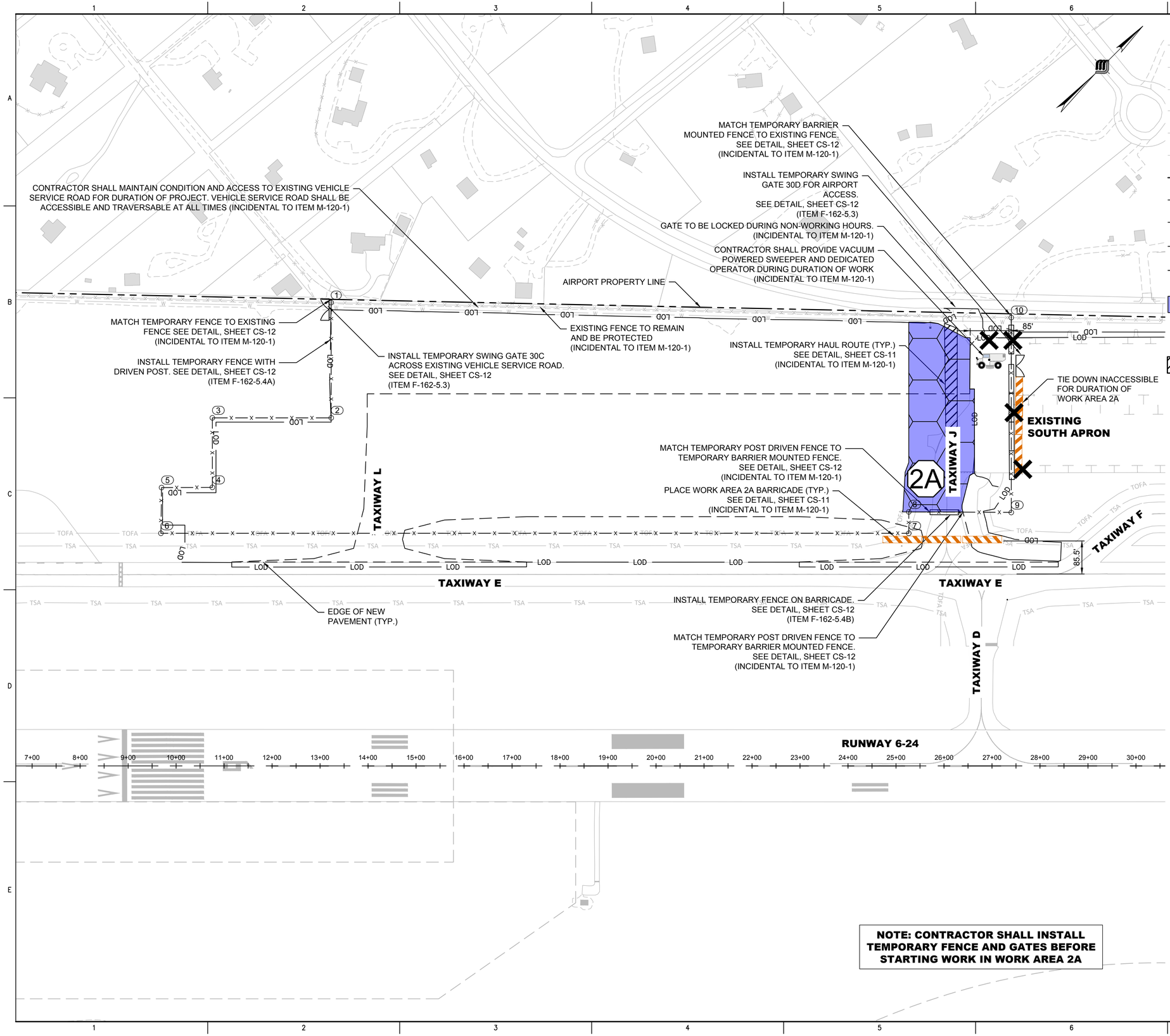
DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=100'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1

DRAWING NUMBER
CS-02

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG


CONTRACTOR SHALL MAINTAIN CONDITION AND ACCESS TO EXISTING VEHICLE SERVICE ROAD FOR DURATION OF PROJECT. VEHICLE SERVICE ROAD SHALL BE ACCESSIBLE AND TRAVERSABLE AT ALL TIMES (INCIDENTAL TO ITEM M-120-1)
MATCH TEMPORARY BARRIER MOUNTED FENCE TO EXISTING FENCE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)
INSTALL TEMPORARY SWING GATE 30D FOR AIRPORT ACCESS. SEE DETAIL, SHEET CS-12 (ITEM F-162-5.3)
GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)
CONTRACTOR SHALL PROVIDE VACUUM POWERED SWEEPER AND DEDICATED OPERATOR DURING DURATION OF WORK (INCIDENTAL TO ITEM M-120-1)
AIRPORT PROPERTY LINE
MATCH TEMPORARY FENCE TO EXISTING FENCE SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)
INSTALL TEMPORARY FENCE WITH DRIVEN POST. SEE DETAIL, SHEET CS-12 (ITEM F-162-5.4A)
INSTALL TEMPORARY SWING GATE 30C ACROSS EXISTING VEHICLE SERVICE ROAD. SEE DETAIL, SHEET CS-12 (ITEM F-162-5.3)
EXISTING FENCE TO REMAIN AND BE PROTECTED (INCIDENTAL TO ITEM M-120-1)
INSTALL TEMPORARY HAUL ROUTE (TYP.) SEE DETAIL, SHEET CS-11 (INCIDENTAL TO ITEM M-120-1)
TIE DOWN INACCESSIBLE FOR DURATION OF WORK AREA 2A
EXISTING SOUTH APRON
MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY BARRIER MOUNTED FENCE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)
PLACE WORK AREA 2A BARRICADE (TYP.) SEE DETAIL, SHEET CS-11 (INCIDENTAL TO ITEM M-120-1)
2A
TAXIWAY J
TAXIWAY L
TAXIWAY E
TAXIWAY F
TAXIWAY D
RUNWAY 6-24
EDGE OF NEW PAVEMENT (TYP.)
INSTALL TEMPORARY FENCE ON BARRICADE. SEE DETAIL, SHEET CS-12 (ITEM F-162-5.4B)
MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY BARRIER MOUNTED FENCE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)
85'
85.5'
LOD
TSA
TOFA
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
28+00
29+00
30+00

NOTE: CONTRACTOR SHALL INSTALL TEMPORARY FENCE AND GATES BEFORE STARTING WORK IN WORK AREA 2A

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- EDGE OF NEW PAVEMENT
- LOD — LIMITS OF DISTURBANCE
- TEMPORARY FENCE WITH DRIVEN POST (ITEM F-162-5.4A)
- TEMPORARY FENCE ON BARRICADE (ITEM F-162-5.4B)
- WORK AREA 2A
- VACUUM SWEEPER (INCIDENTAL TO ITEM M-120-1)
- TEMPORARY HAUL ROUTE (INCIDENTAL TO ITEM M-120-1)
- WORK AREA BARRICADE (INCIDENTAL TO ITEM M-120-1)
- TEMPORARY SWING GATE (ITEM F-162-5.3)
- INACCESSIBLE TIEDOWN

TEMPORARY FENCE - WORK AREA 2A		
Point #	Northing	Easting
1	91636.46	1757970.21
2	91467.58	1758141.04
3	91291.68	1757966.79
4	91189.74	1758069.68
5	91114.16	1757995.41
6	91046.18	1758062.18
7	92153.22	1759158.92
8	92184.58	1759127.26
9	92335.35	1759278.42
10	92621.20	1758989.87

WORK AREA 2A SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN. BEFORE STARTING WORK IN WORK AREA 2A, CONTRACTOR SHALL INSTALL TEMPORARY FENCE AS SHOWN ON THE PLANS.

WORK AREA 2A: 40 CALENDAR DAYS

CLOSURES:
- TAXIWAY J
- SOUTHWESTERN END OF SOUTH APRON

WORK TO BE COMPLETED:
- EROSION CONTROL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF BASE COURSE
- ASPHALT PAVING
- PAVEMENT MARKINGS
- LIGHTING
- DRAINAGE
- TOPSOILING AND SEEDING

WORK LIMITATIONS
- NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON).

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 100 200 300 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS
PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=100'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2A

DRAWING NUMBER
CS-03
10 OF 72

K:\NANTUCKET\18706.07 ACK SOUTH APRON EXPANSION\DRAWING\BASHEET FILES\18706.07-CSPP.DWG

EXISTING FENCE TO REMAIN AND BE PROTECTED (INCIDENTAL TO ITEM M-120-1)

CONTRACTOR SHALL MAINTAIN CONDITION AND ACCESS TO EXISTING VEHICLE SERVICE ROAD FOR DURATION OF PROJECT. VEHICLE SERVICE ROAD SHALL BE ACCESSIBLE AND TRAVERSABLE AT ALL TIMES (INCIDENTAL TO ITEM M-120-1)

GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

RELOCATE TEMPORARY SWING GATE 30D FOR AIRPORT ACCESS. SEE DETAIL, SHEET CS-12 (ITEM F-162-5.3)

AIRPORT PROPERTY LINE

MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY SWING GATE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)

TEMPORARY SWING GATE 30C TO REMAIN FOR WORK AREA 2B

2B

MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY FENCE ON BARRICADE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)

TEMPORARY FENCE TO REMAIN FOR WORK AREA 2B

EXISTING SOUTH APRON

ADD ALT 2 LIMITS

TAXIWAY L

TAXIWAY J

INSTALL TEMPORARY FENCE ON BARRICADE SEE DETAIL , SHEET CS-12 (ITEM F-162-5.4B)

TAXIWAY F

MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY FENCE ON BARRICADE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)

STOCKPILE AREA NO. 6 (MAXIMUM HEIGHT 25')

TAXIWAY E

EDGE OF NEW PAVEMENT (TYP.)

MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY FENCE ON BARRICADE . SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)

INSTALL TEMPORARY FENCE ON BARRICADE PRIOR TO STARTING WORK IN WORK AREA 2C SEE DETAIL , SHEET CS-12 (ITEM F-162-5.4B)

MATCH TEMPORARY POST DRIVEN FENCE TO TEMPORARY FENCE ON BARRICADE. SEE DETAIL, SHEET CS-12 (INCIDENTAL TO ITEM M-120-1)

TAXIWAY D

PLACE WORK AREA 2B BARRICADE SEE DETAIL, SHEET CS-11 (INCIDENTAL TO ITEM M-120-1)

RUNWAY 6-24

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- EDGE OF NEW PAVEMENT
- LOD — LIMITS OF DISTURBANCE
- TEMPORARY FENCE WITH DRIVEN POST (ITEM F-162-5.4A)
- TEMPORARY FENCE ON BARRICADE (ITEM F-162-5.4B)
- STOCKPILE
- WORK AREA 2B
- TEMPORARY SWING GATE (ITEM F-162-5.3)
- HAUL ROUTE (TYP.)

TEMPORARY FENCE - WORK AREA 2B

Point #	Northing	Easting
11	91636.55	1757970.30
12	91467.58	1758141.04
13	91291.68	1757966.79
14	91186.23	1758073.24
15	91109.83	1757999.33
16	91046.19	1758062.16
17	92153.24	1759158.92
18	92407.25	1758902.21
19	92558.71	1758986.95
20	92589.59	1758957.08

WORK AREA 2B SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN.

BEFORE STARTING WORK IN WORK AREA 2B, CONTRACTOR SHALL RELOCATE TEMPORARY FENCE AS SHOWN ON THE PLANS.

WORK AREA 2B:
BASE BID: 120 CALENDAR DAYS
BASE BID + ADD ALT #2: 150 CALENDAR DAYS

CLOSURES:
- NONE

WORK TO BE COMPLETED:
- EROSION CONTROL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF BASE COURSE
- ASPHALT PAVING
- PCC PAVING
- PAVEMENT MARKINGS
- LIGHTING
- DRAINAGE
- TOPSOILING AND SEEDING
- DUCT BANK INSTALLATION
- NOISE MONITORING SYSTEM
- APRON LIGHTING
- SECURITY CAMERAS

WORK LIMITATIONS
- NONE

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 100 200 300 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN MRB
DESIGNED DMP
CHECKED RAL
SCALE 1"=100'
DATE SEPTEMBER 2023
PROJECT 18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2B

DRAWING NUMBER
CS-04
11 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG

CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

CONTRACTOR SHALL MAINTAIN CONDITION AND ACCESS TO EXISTING VEHICLE SERVICE ROAD FOR DURATION OF PROJECT. VEHICLE SERVICE ROAD SHALL BE ACCESSIBLE AND TRAVERSABLE AT ALL TIMES (INCIDENTAL TO ITEM M-120-1)

AIRPORT PROPERTY LINE

EDGE OF NEW PAVEMENT (TYP.)

TIE DOWN INACCESSIBLE FOR DURATION OF WORK AREA 2C

WORK AREA 2C BARRICADE (TYP.) FOR WORK AREA 1C, PLACE BARRICADES PER THIS SHEET OR AS DIRECTED BY ACK OPERATIONS SEE DETAIL, SHEET CS-07 (INCIDENTAL TO ITEM M-120-1)

CONTRACTOR SHALL PROVIDE VACUUM POWERED SWEEPER AND DEDICATED OPERATOR DURING DURATION OF WORK (INCIDENTAL TO ITEM M-120-1)

THE CONTRACTOR SHALL MAINTAIN THE EXISTING TAXIWAY E CIRCUIT DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL TEMPORARY JUMPERS AS DIRECTED BY THE AIRPORT AND THE RPR. ALL MATERIALS AND LABOR ASSOCIATED WITH TEMPORARY JUMPERS SHALL BE INCIDENTAL TO ITEM M-120-1

INSTALL SAFETY CONES PER DETAIL ON SHEET CS-11. INSTALL SIGN STATING "NO CONSTRUCTION TRAFFIC BEYOND THIS POINT". SIGN AND LETTERS SHALL BE ADEQUATELY SIZED FOR VISIBILITY FROM CONSTRUCTION VEHICLES IN WORK AREA. SIGNS AND CONES SHALL BE SECURED TO WITHSTAND HIGH WINDS AND/OR JET BLAST (INCIDENTAL TO ITEM M-120-1)

EXISTING SOUTH APRON

TAXIWAY J

TAXIWAY L

TAXIWAY E

TAXIWAY F

TAXIWAY D

2C

RUNWAY 6-24

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

ABANDONED RUNWAY EDGE LIGHT CIRCUIT (TYP.)

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- EDGE OF NEW PAVEMENT
- LOD — LIMITS OF DISTURBANCE
- WORK AREA 2C
- FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)
- VACUUM SWEEPER (INCIDENTAL TO ITEM M-120-1)
- WORK AREA BARRICADE (INCIDENTAL TO ITEM M-120-1)
- INACCESSIBLE TIEDOWN
- HAUL ROUTE (TYP.)
- TRAFFIC CONES (TYP.)

WORK AREA 2C SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN

WORK AREA 2C: 15 CALENDAR DAYS

CLOSURES:
- TAXIWAY E BETWEEN TAXIWAY D AND TAXIWAY E RUN-UP PAD
- TAXIWAY J

WORK TO BE COMPLETED:
- EROSION CONTROL
- UNCLASSIFIED EXCAVATION
- COLD MILLING
- INSTALLATION OF BASE COURSE
- ASPHALT PAVING
- PAVEMENT MARKINGS
- LIGHTING
- DRAINAGE
- TOPSOILING AND SEEDING

WORK LIMITATIONS
- NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON).

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 100 200 300 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=100'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2C

DRAWING NUMBER
CS-05
12 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG

CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)

CONTRACTOR SHALL MAINTAIN CONDITION AND ACCESS TO EXISTING VEHICLE SERVICE ROAD FOR DURATION OF PROJECT. VEHICLE SERVICE ROAD SHALL BE ACCESSIBLE AND TRAVERSABLE AT ALL TIMES (INCIDENTAL TO ITEM M-120-1)

AIRPORT PROPERTY LINE

TIE DOWN INACCESSIBLE FOR DURATION OF WORK AREA 2D

EDGE OF NEW PAVEMENT (TYP.)

PLACE BARRICADES ON EDGE OF NEW PAVEMENT OR AS DIRECTED BY ACK OPERATIONS (INCIDENTAL TO ITEM M-120-1)

EXISTING SOUTH APRON

THE CONTRACTOR SHALL MAINTAIN THE EXISTING TAXIWAY E CIRCUIT DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL TEMPORARY JUMPERS AS DIRECTED BY THE AIRPORT AND THE RPR. ALL MATERIALS AND LABOR ASSOCIATED WITH TEMPORARY JUMPERS SHALL BE INCIDENTAL TO ITEM M-120-1

TAXIWAY J

TAXIWAY L

TAXIWAY F

TAXIWAY E

TAXIWAY C

TAXIWAY D

2D

MATCHLINE THIS SHEET - SEE INSET B

CONTRACTOR SHALL PROVIDE VACUUM POWERED SWEEPER AND DEDICATED OPERATOR DURING DURATION OF WORK (INCIDENTAL TO ITEM M-120-1)

INSTALL SAFETY CONES PER DETAIL ON SHEET CS-11. INSTALL SIGN STATING "NO CONSTRUCTION TRAFFIC BEYOND THIS POINT". SIGN AND LETTERS SHALL BE ADEQUATELY SIZED FOR VISIBILITY FROM CONSTRUCTION VEHICLES IN WORK AREA. SIGNS AND CONES SHALL BE SECURED TO WITHSTAND HIGH WINDS AND/OR JET BLAST (TYP.) (INCIDENTAL TO ITEM M-120-1)

RUNWAY 6-24

17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

MATCHLINE THIS SHEET

EXISTING SOUTH APRON

TAXIWAY F

TAXIWAY E

TAXIWAY C

85.5'

RUNWAY 6-24

31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40

INSET A

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- EDGE OF NEW PAVEMENT
- LOD — LIMITS OF DISTURBANCE
- WORK AREA 2D
- FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)
- VACUUM SWEEPER (INCIDENTAL TO ITEM M-120-1)
- WORK AREA BARRICADE (INCIDENTAL TO ITEM M-120-1)
- INACCESSIBLE TIEDOWN
- HAUL ROUTE (TYP.)
- TRAFFIC CONES (TYP.)

WORK AREA 2D SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN

WORK AREA 2D: 10 CALENDAR DAYS

CLOSURES:
- TAXIWAY E BETWEEN TAXIWAY C AND TAXIWAY E RUN-UP PAD
- TAXIWAY F SOUTH OF TAXIWAY C
- TAXIWAY D
- TAXIWAY J

WORK TO BE COMPLETED:
- EROSION CONTROL
- UNCLASSIFIED EXCAVATION
- COLD MILLING
- INSTALLATION OF BASE COURSE
- ASPHALT PAVING
- PAVEMENT MARKINGS
- LIGHTING
- DRAINAGE
- TOPSOILING AND SEEDING

WORK LIMITATIONS
- NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON).

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 100 200 300 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=100'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

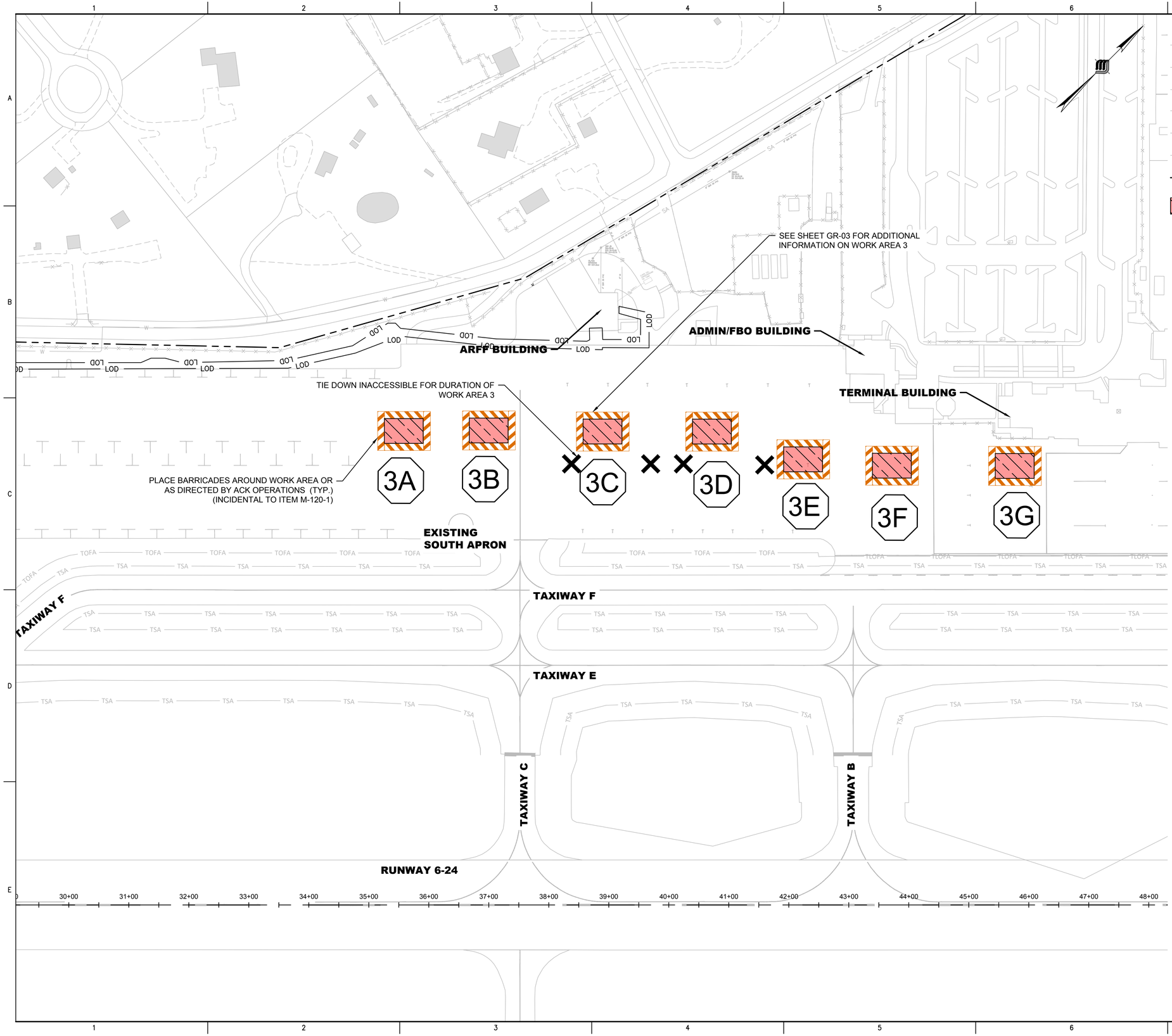
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2D

DRAWING NUMBER

CS-06

13 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG



LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- WORK AREA 3
- INACCESSIBLE TIEDOWN

WORK AREA 3 SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN

WORK AREA 3: 7 NONCONSECUTIVE CALENDAR DAYS

CLOSURES:

- CONTRACTOR SHALL COORDINATE ALL WORK WITH ACK OPERATIONS A MINIMUM OF 72 HOURS IN ADVANCE
- LOCAL APRON AREA AROUND DRAINAGE STRUCTURE

WORK TO BE COMPLETED:

- REMOVAL AND REPLACEMENT OF CATCH BASINS
- PAVEMENT REPAIR

WORK LIMITATIONS

- WORK ON EACH STRUCTURE SHALL BE COMPLETED WITHIN ONE (1) DAY
- A MAXIMUM OF ONE (1) WORK AREA SHALL BE CLOSED AT A TIME
- CONTRACTOR TO ACCESS WORK AREA VIA VEHICLE GATE 30B
- NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON).

WORK HOURS

- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

PHASING NOTES:

1. CONTRACTOR SHALL PROVIDE ESCORT FOR ALL WORK IN WORK AREA 3A-3G (INCIDENTAL TO ITEM M-120-1).
2. CONTRACTOR SHALL MONITOR SURROUNDING AREA DURING WORK. AIRCRAFT TRAFFIC SHALL HAVE THE RIGHT OF WAY AT ALL TIMES.

0 80 160 240 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=80'
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

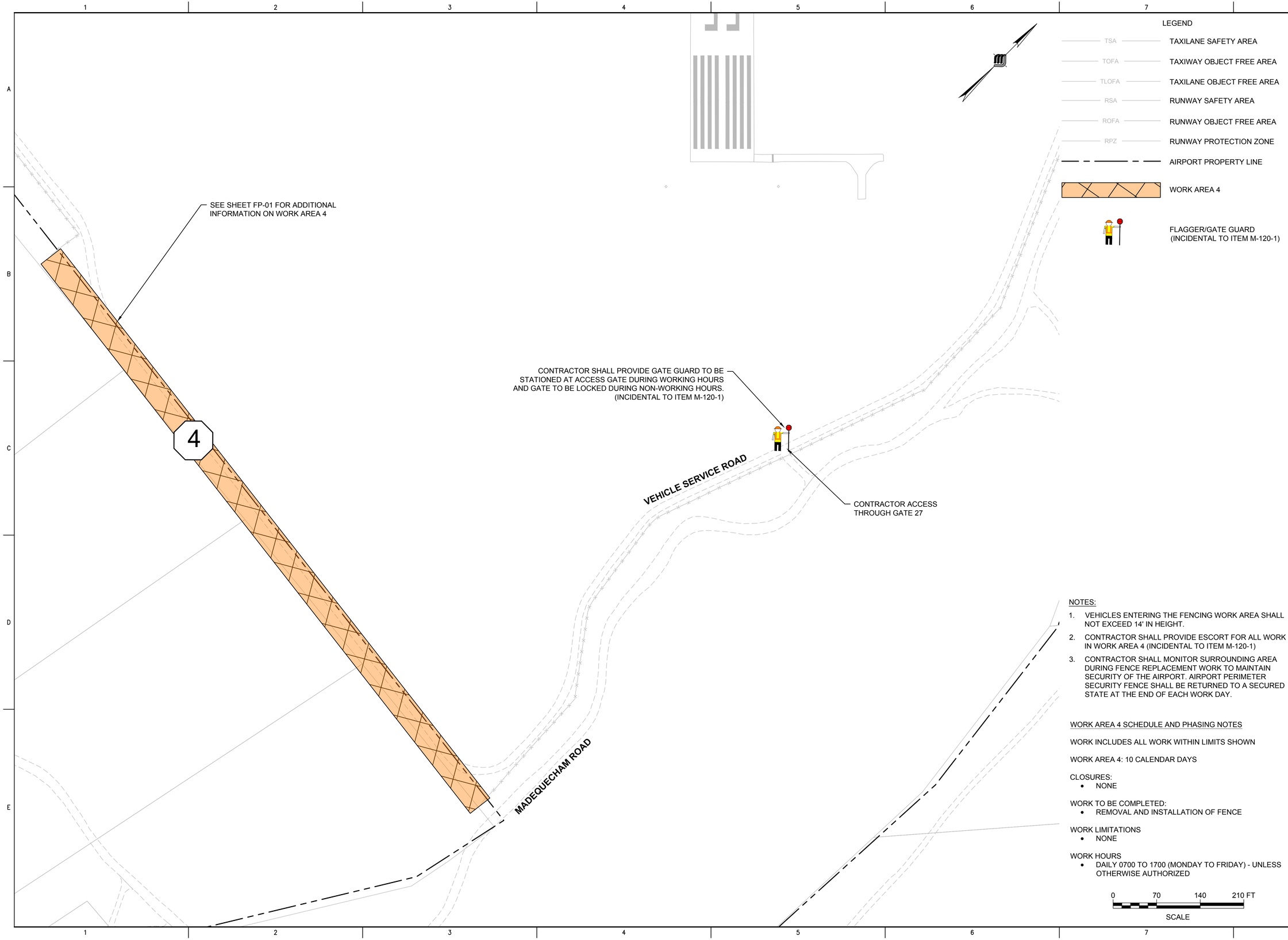
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3

DRAWING NUMBER

CS-07

14 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG


SEE SHEET FP-01 FOR ADDITIONAL INFORMATION ON WORK AREA 4
4
CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)
CONTRACTOR ACCESS THROUGH GATE 27
VEHICLE SERVICE ROAD
MADEQUECHAM ROAD
LEGEND
TSA TAXILANE SAFETY AREA
TOFA TAXIWAY OBJECT FREE AREA
TLOFA TAXILANE OBJECT FREE AREA
RSA RUNWAY SAFETY AREA
ROFA RUNWAY OBJECT FREE AREA
RPZ RUNWAY PROTECTION ZONE
AIRPORT PROPERTY LINE
WORK AREA 4
FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)

NOTES:

1. VEHICLES ENTERING THE FENCING WORK AREA SHALL NOT EXCEED 14' IN HEIGHT.
2. CONTRACTOR SHALL PROVIDE ESCORT FOR ALL WORK IN WORK AREA 4 (INCIDENTAL TO ITEM M-120-1)
3. CONTRACTOR SHALL MONITOR SURROUNDING AREA DURING FENCE REPLACEMENT WORK TO MAINTAIN SECURITY OF THE AIRPORT. AIRPORT PERIMETER SECURITY FENCE SHALL BE RETURNED TO A SECURED STATE AT THE END OF EACH WORK DAY.

WORK AREA 4 SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN

WORK AREA 4: 10 CALENDAR DAYS

CLOSURES:
- NONE

WORK TO BE COMPLETED:
- REMOVAL AND INSTALLATION OF FENCE

WORK LIMITATIONS
- NONE

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 70 140 210 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

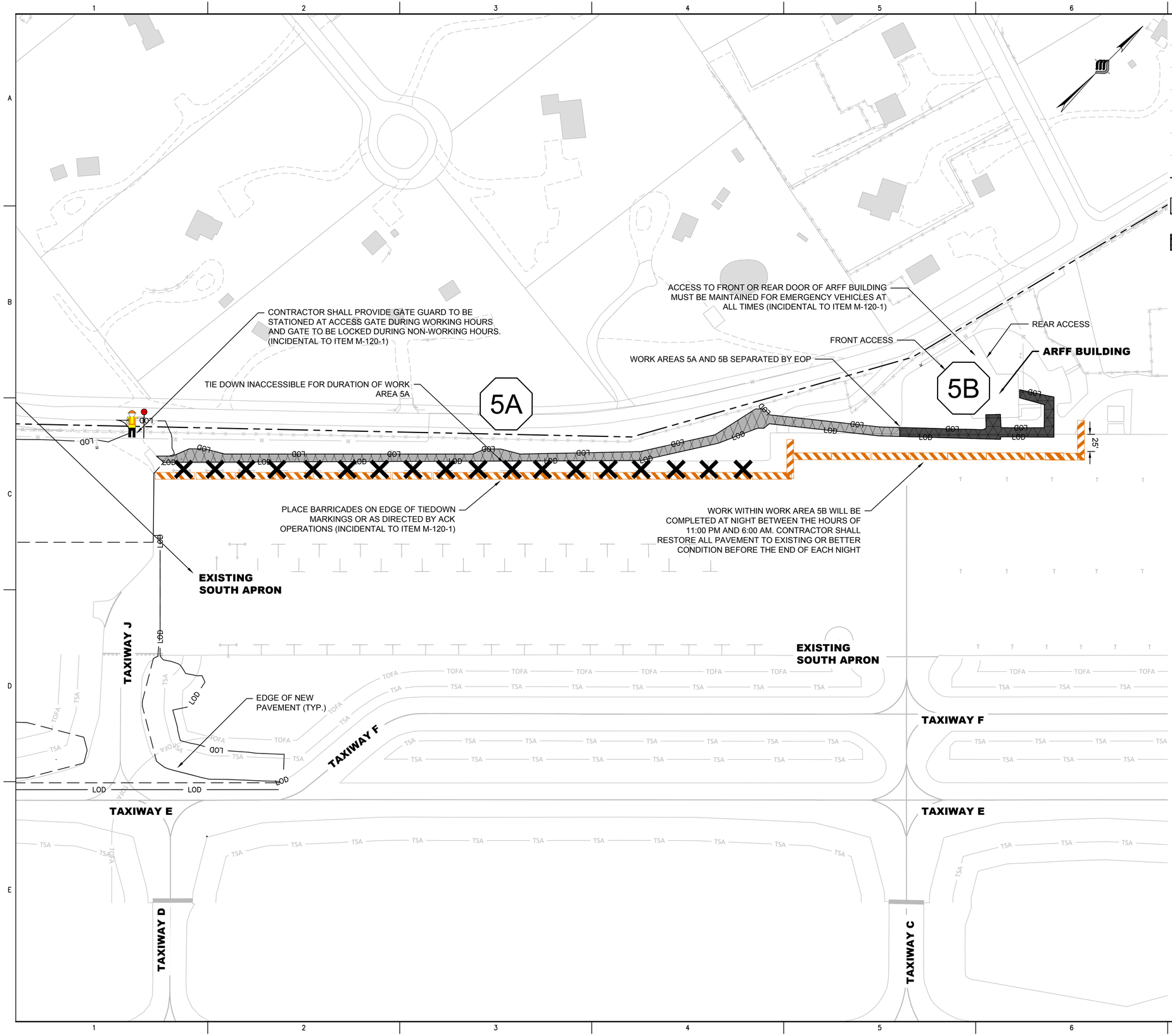
DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=70'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 4

DRAWING NUMBER
CS-08
15 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG


CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)
TIE DOWN INACCESSIBLE FOR DURATION OF WORK AREA 5A
5A
5B
ACCESS TO FRONT OR REAR DOOR OF ARFF BUILDING MUST BE MAINTAINED FOR EMERGENCY VEHICLES AT ALL TIMES (INCIDENTAL TO ITEM M-120-1)
REAR ACCESS
FRONT ACCESS
WORK AREAS 5A AND 5B SEPARATED BY EOP
ARFF BUILDING
PLACE BARRICADES ON EDGE OF TIEDOWN MARKINGS OR AS DIRECTED BY ACK OPERATIONS (INCIDENTAL TO ITEM M-120-1)
WORK WITHIN WORK AREA 5B WILL BE COMPLETED AT NIGHT BETWEEN THE HOURS OF 11:00 PM AND 6:00 AM. CONTRACTOR SHALL RESTORE ALL PAVEMENT TO EXISTING OR BETTER CONDITION BEFORE THE END OF EACH NIGHT
EXISTING SOUTH APRON
EDGE OF NEW PAVEMENT (TYP.)
TAXIWAY J
TAXIWAY F
TAXIWAY E
TAXIWAY D
TAXIWAY C
LOD
TOFA
TSA
25'

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- WORK AREA 5A
- WORK AREA 5B
- FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)
- WORK AREA BARRICADE (INCIDENTAL TO ITEM M-120-1)
- INACCESSIBLE TIEDOWN

WORK AREA 5A SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN.

WORK AREA 5A: 10 CONSECUTIVE CALENDAR DAYS

CLOSURES:
- LOCAL APRON TIEDOWNS

WORK TO BE COMPLETED:
- EROSION CONTROL
- UNCLASSIFIED EXCAVATION
- GENERAL ELECTRICAL
- DUCT BANK INSTALLATION
- TOPSOILING AND SEEDING
- NOISE MONITORING SYSTEM
- SECURITY CAMERAS
- PAVEMENT MARKINGS

WORK LIMITATIONS
- NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON).

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

WORK AREA 5B SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN.

WORK AREA 5B: 6 CONSECUTIVE CALENDAR NIGHTS

CLOSURES:
- LOCAL APRON TAXILANE

WORK TO BE COMPLETED:
- UNCLASSIFIED EXCAVATION
- DUCT BANK INSTALLATION IN EXISTING PAVEMENT
- GENERAL ELECTRICAL
- PAVEMENT REPAIR
- TOPSOILING AND SEEDING

WORK LIMITATIONS
- NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY. (IN ORDER TO AVOID THE AIRPORT'S PEAK SEASON).

WORK HOURS
- NIGHTLY 2300 TO 0600 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 70 140 210 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=70'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

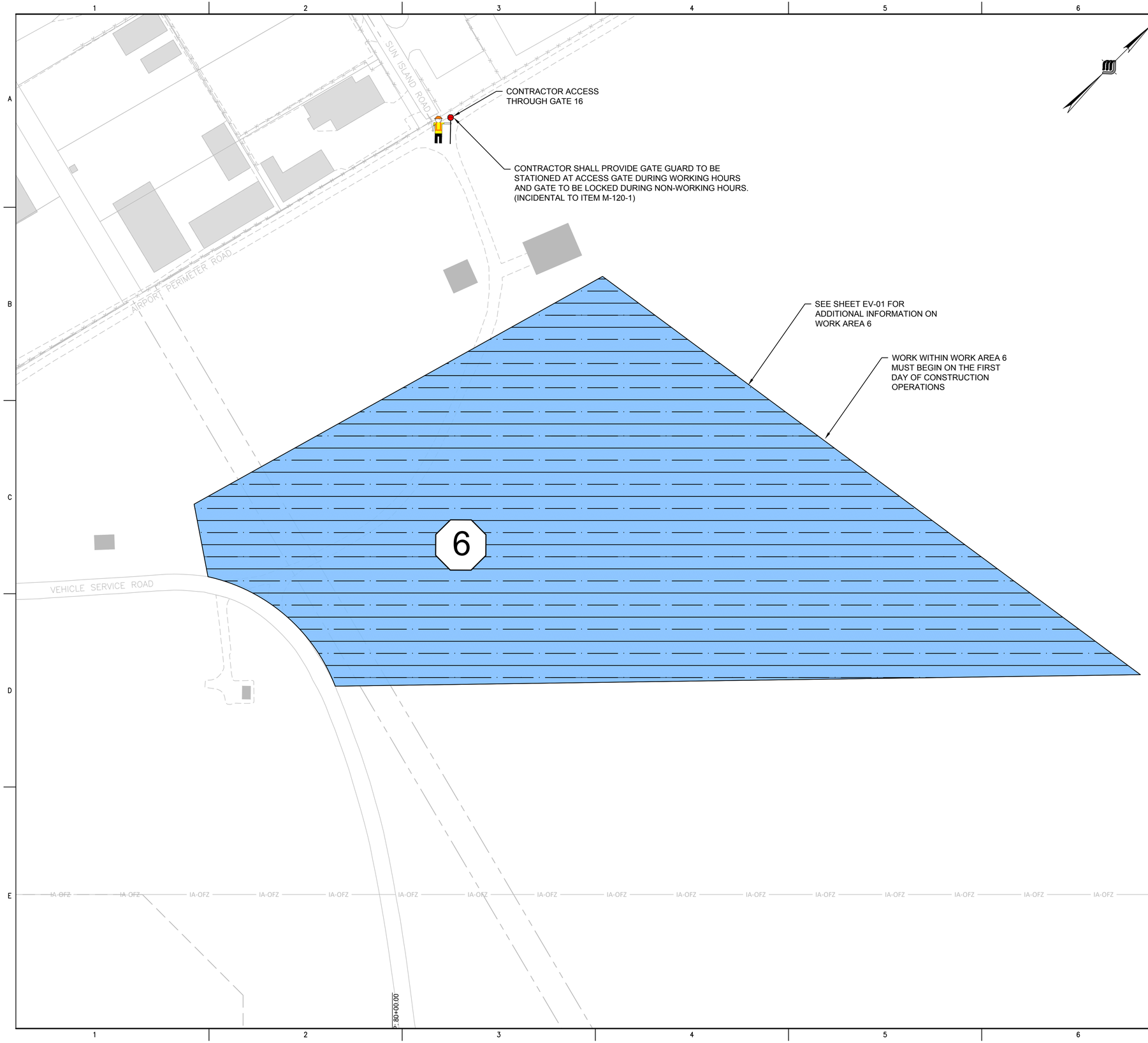
DRAWING TITLE

CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 5

DRAWING NUMBER

CS-09

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-CSP.DWG


SUN ISLAND ROAD
AIRPORT PERIMETER ROAD
VEHICLE SERVICE ROAD
CONTRACTOR ACCESS THROUGH GATE 16
CONTRACTOR SHALL PROVIDE GATE GUARD TO BE STATIONED AT ACCESS GATE DURING WORKING HOURS AND GATE TO BE LOCKED DURING NON-WORKING HOURS. (INCIDENTAL TO ITEM M-120-1)
SEE SHEET EV-01 FOR ADDITIONAL INFORMATION ON WORK AREA 6
WORK WITHIN WORK AREA 6 MUST BEGIN ON THE FIRST DAY OF CONSTRUCTION OPERATIONS
6
IA-OFZ
80+00.00

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- RPZ — RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- WORK AREA 6
- FLAGGER/GATE GUARD (INCIDENTAL TO ITEM M-120-1)

WORK AREA 6 SCHEDULE AND PHASING NOTES

WORK INCLUDES ALL WORK WITHIN LIMITS SHOWN.

WORK AREA 6: 30 CONSECUTIVE CALENDAR DAYS

CLOSURES:
- NONE

WORK TO BE COMPLETED:
- TERRAIN SMOOTING
- ERADICATION OF INVASIVE SPECIES
- GROUND SCARIFICATION
- SOIL CONDITIONING AND SEEDING
- MOWING

WORK LIMITATIONS
- NONE

WORK HOURS
- DAILY 0700 TO 1700 (MONDAY TO FRIDAY) - UNLESS OTHERWISE AUTHORIZED

0 60 120 180 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=70'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

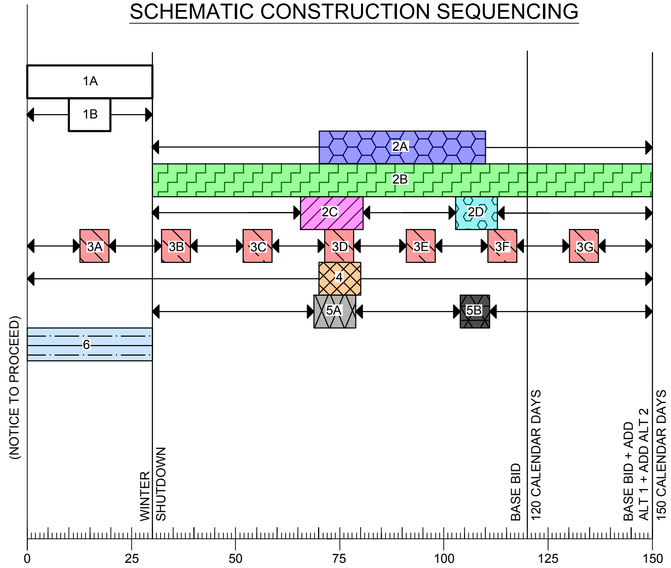
DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 6

DRAWING NUMBER
CS-10

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-CSPP.DWG

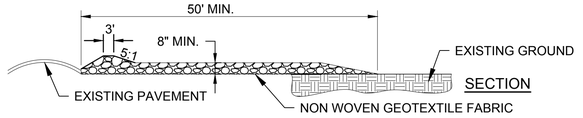
WORK AREA TABLE				
WORK AREA	DESCRIPTION OF WORK	CALENDAR DAYS	CLOSURES	LIQUIDATED DAMAGES
1A (BASE BID)	INSTALLATION OF STORMWATER INFILTRATION SYSTEM, CLEARING AND GRUBBING WITHIN WORK AREA	30	TAXIWAY E BETWEEN TAXIWAY D AND TAXIWAY E RUN-UP PAD	$4,200 DAILY
1B (BASE BID)	DEMOLITION OF EXISTING DRAINAGE STRUCTURES AND IRRIGATION CONTROL VALVES, REMOVAL OF TIEDOWNS, INSTALLATION OF DRAINAGE INFRASTRUCTURE	5	TAXIWAY J, TIEDOWNS (PERMANENT)	$4,200 DAILY
2A (BASE BID)	EROSION CONTROL, UNCLASSIFIED EXCAVATION, INSTALLATION OF BASE COURSE, ASPHALT PAVING, PAVEMENT MARKINGS, LIGHTING, DRAINAGE, TOPSOILING AND SEEDING	40	TAXIWAY J, SOUTHWESTERN END OF SOUTH APRON	$4,200 DAILY
2B (BASE BID, ADD ALT #2)	EROSION CONTROL, UNCLASSIFIED EXCAVATION, INSTALLATION OF BASE COURSE, ASPHALT PAVING, PCC PAVING, PAVEMENT MARKINGS, LIGHTING, DRAINAGE, TOPSOILING AND SEEDING, DUCT BANK INSTALLATION, NOISE MONITORING SYSTEM, APRON LIGHTING, SECURITY CAMERAS	BASE BID: 90 BASE BID + ADD ALT #2: 120	NONE	$4,200 DAILY
2C (BASE BID)	EROSION CONTROL, UNCLASSIFIED EXCAVATION, COLD MILLING, INSTALLATION OF BASE COURSE, ASPHALT PAVING, PAVEMENT MARKINGS, LIGHTING, TOPSOILING AND SEEDING	15	TAXIWAY E BETWEEN TAXIWAY D AND TAXIWAY E RUN-UP PAD, TAXIWAY J	$4,200 DAILY
2D (BASE BID)	EROSION CONTROL, UNCLASSIFIED EXCAVATION, COLD MILLING, INSTALLATION OF BASE COURSE, ASPHALT PAVING, PAVEMENT MARKINGS, LIGHTING, TOPSOILING AND SEEDING	10	TAXIWAY E BETWEEN TAXIWAY C AND TAXIWAY E RUN-UP PAD, TAXIWAY F SOUTH OF TAXIWAY C, TAXIWAY D, TAXIWAY J	$4,200 DAILY
3A-3G (ADD ALT #1)	REMOVAL AND REPLACEMENT OF CATCH BASINS, PAVEMENT REPAIR	7	LOCAL APRON AREA AROUND DRAIN	$4,200 DAILY
4 (BASE BID)	FENCE REPLACEMENT	10	NONE	$4,200 DAILY
5A (BASE BID)	APPROX. 1,200 LF OF DUCT BANK WITH SOME UTILITY CROSSINGS AND (6) STRUCTURES TO SET	10	LOCAL APRON TIEDOWNS	$4,200 DAILY
5B (BASE BID)	APPROX. 600 LF OF DUCT BANK WITH SOME UTILITY CROSSINGS AND (4) STRUCTURES TO SET	6	LOCAL APRON TAXILANE	$4,200 DAILY
6 (BASE BID)	TERRAIN SMOOTHING, ERADICATION OF INVASIVE SPECIES, GROUND SCARIFICATION, SOIL CONDITIONING AND SEEDING, MOWING	30	NONE	$4,200 DAILY
BASE BID TOTAL CONTRACT TIME: 120 CALENDAR DAYS				
BASE BID + ADD ALT #1 TOTAL CONTRACT TIME: 120 CALENDAR DAYS				
BASE BID + ADD ALT #1 + ADD ALT #2 TOTAL CONTRACT TIME: 150 CALENDAR DAYS				

SCHEMATIC CONSTRUCTION SEQUENCING

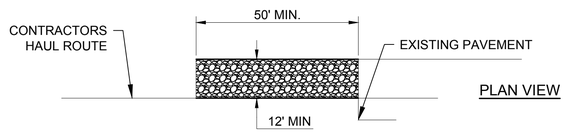


NOTE:

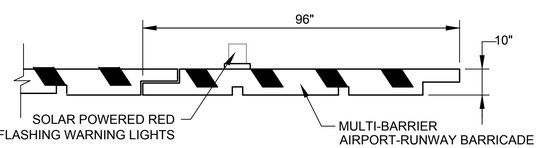
THE INTENT OF THIS PROJECT IS TO BEGIN IN THE FALL OF 2023. DURING THE FALL OF 2023, THE CONTRACTOR WILL PERFORM CLEARING AND GRUBBING OPERATIONS AND INSTALL THE STORMWATER INFILTRATION SYSTEM AND A PORTION OF THE PROPOSED DRAINAGE INFRASTRUCTURE. THE INTENT OF THE FALL 2023 CONSTRUCTION SEASON IS TO REDIRECT THE EXISTING DRAINAGE CATCHMENT TO THE NEW STORMWATER INFILTRATION SYSTEM IN ADVANCE OF THE CONSTRUCTION OF THE SOUTH APRON EXPANSION. FOLLOWING THE COMPLETION OF WORK AREAS 1A, 1B AND 6, IT IS ANTICIPATED THE CONTRACTOR WILL STOP WORK FOR A WINTER SHUTDOWN, AND RESUME IN THE SPRING OF 2024. NO WORK SHALL BE PERFORMED BETWEEN MAY 15 AND LABOR DAY, EXCEPT IN WORK AREA 2B. NO CLEARING AND GRUBBING OR REMOVAL OF TREES SHALL BE PERMITTED BETWEEN APRIL 15 AND OCTOBER 31.



SECTION



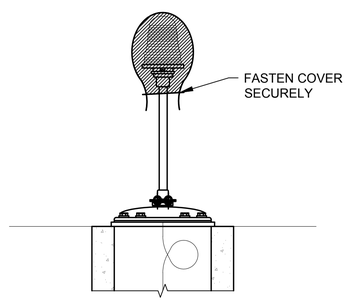
PLAN VIEW



NOTES:
1. PLACE BARRICADES CONTINUOUSLY ACROSS PAVEMENT TO WITHIN 5' OF EDGE OF PAVEMENT OR ADBE.
2. BARRICADES SHALL BE ORANGE HDPE WITH WHITE REFLECTIVE BANDS (OR APPROVED EQUAL).
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF ALL BARRICADES THROUGH THE PROJECT DURATION

LOW PROFILE CONSTRUCTION BARRICADE DETAIL

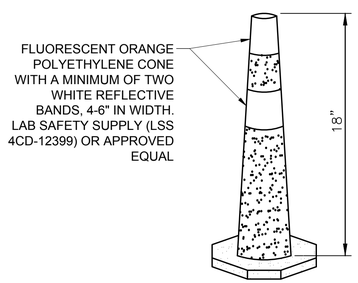
NOT TO SCALE
(INCIDENTAL TO ITEM M-120-1)



1. TAXIWAY LIGHTING CIRCUIT SHALL BE DISABLED IN ADDITION TO COVERING BLUE GLOBES.
2. ALTERNATE MEANS MAY BE APPROVED BY THE ENGINEER.

EDGE LIGHT COVER DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEM M-120-1)


FLUORESCENT ORANGE POLYETHYLENE CONE WITH A MINIMUM OF TWO WHITE REFLECTIVE BANDS, 4-6" IN WIDTH. LAB SAFETY SUPPLY (LSS 4CD-12399) OR APPROVED EQUAL
18"

TRAFFIC CONE NOTES:
1. TRAFFIC CONES SHALL BE SPACED AT 10' ON CENTER IN ALL LOCATIONS SHOWN ON PLANS.
2. CONTRACTOR SHALL MAKE FREQUENT INSPECTIONS OF THE TRAFFIC CONES AND SHALL RELOCATE ANY CONES THAT ARE MISALIGNED.
3. TRAFFIC CONES SHALL BE ADEQUATELY SECURED TO WITHSTAND HIGH WINDS AND/OR JET BLAST.

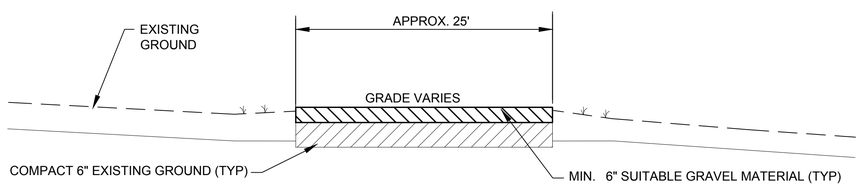
HAUL ROUTE CHANNELIZER CONE DETIAL

NOT TO SCALE
(ITEM M-120-1)

STABILIZED CONSTRUCTION ENTRANCE NOTES:
1. LENGTH - NOT LESS THAN 50 FEET
2. THICKNESS - NOT LESS THAN 8".
3. WIDTH - 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
4. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE
(ITEM C-102-5.1C)



NOTES:
1. CONTRACTOR SHALL MAKE FREQUENT INSPECTIONS OF THE HAUL ROAD AND PERFORM ROUTINE MAINTENANCE AS NECESSARY
2. CONTRACTOR SHALL SLOPE HAUL ROAD SUCH THAT ANY WATER DRAINS ADEQUATELY AND THERE IS NO STANDING WATER AFTER RAIN EVENTS

TEMPORARY CONSTRUCTION HAUL ROAD

NOT TO SCALE
(INCIDENTAL TO ITEM M-120-1)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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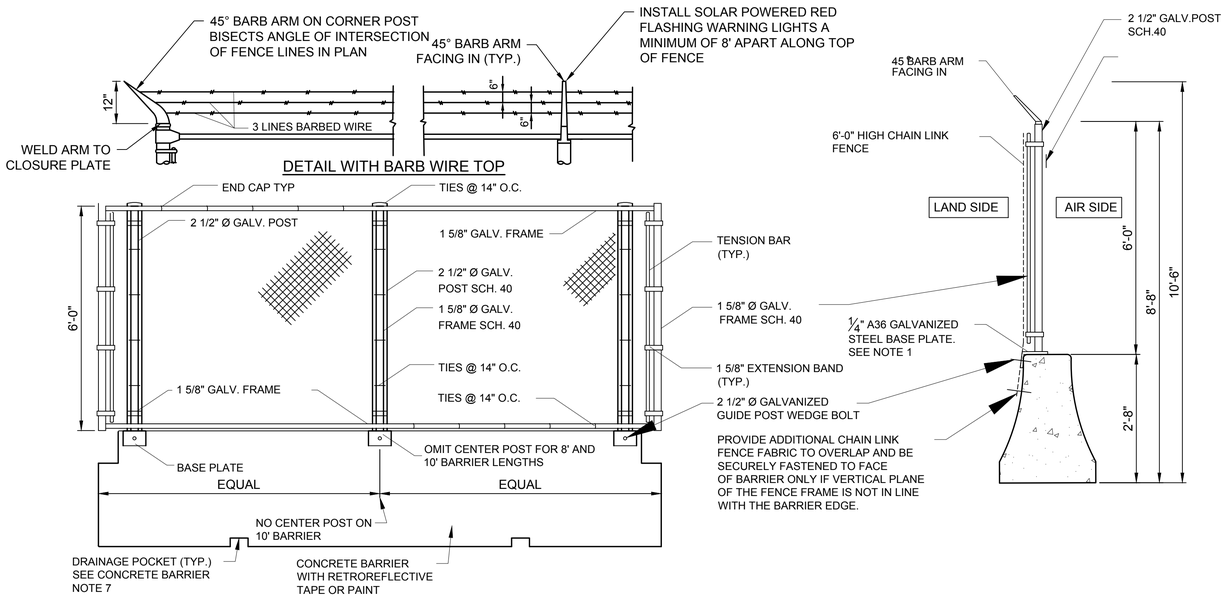
DRAWING TITLE

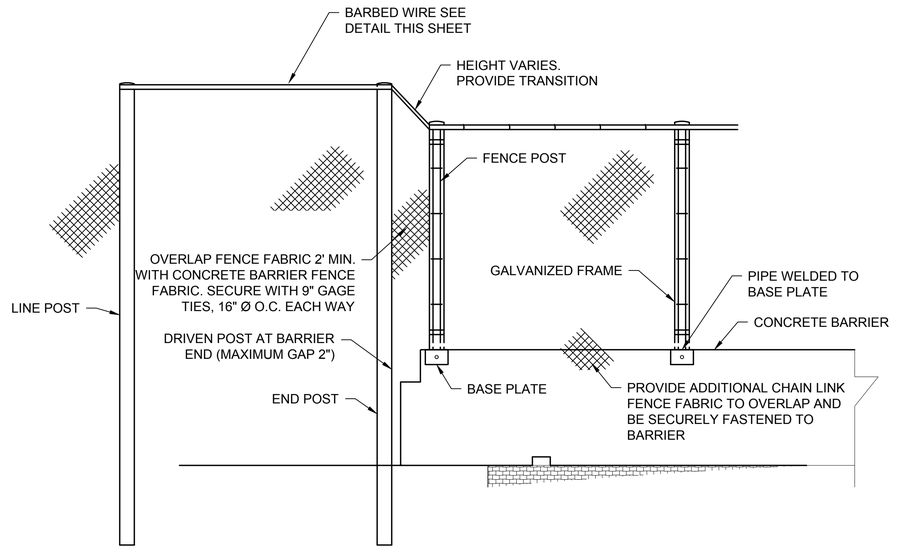
PHASING NOTES AND DETAILS (SHEET 1 OF 2)

DRAWING NUMBER

CS-11

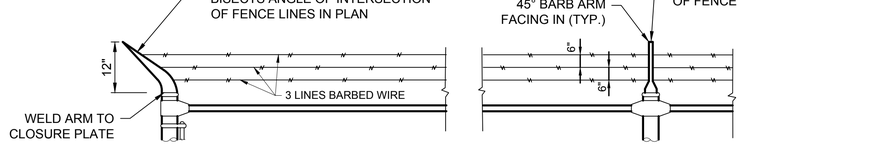
K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-DETS.DWG


45° BARB ARM ON CORNER POST BISECTS ANGLE OF INTERSECTION OF FENCE LINES IN PLAN
45° BARB ARM FACING IN (TYP.)
INSTALL SOLAR POWERED RED FLASHING WARNING LIGHTS A MINIMUM OF 8' APART ALONG TOP OF FENCE
12"
3 LINES BARBED WIRE
WELD ARM TO CLOSURE PLATE
DETAIL WITH BARB WIRE TOP
END CAP TYP
TIES @ 14" O.C.
2 1/2" Ø GALV. POST
1 5/8" GALV. FRAME
TENSION BAR (TYP.)
2 1/2" Ø GALV. POST SCH. 40
1 5/8" Ø GALV. FRAME SCH. 40
6'-0"
TIES @ 14" O.C.
1 5/8" GALV. FRAME
TIES @ 14" O.C.
BASE PLATE
OMIT CENTER POST FOR 8' AND 10' BARRIER LENGTHS
EQUAL
EQUAL
NO CENTER POST ON 10' BARRIER
DRAINAGE POCKET (TYP.) SEE CONCRETE BARRIER NOTE 7
CONCRETE BARRIER WITH RETROREFLECTIVE TAPE OR PAINT
45° BARB ARM FACING IN
2 1/2" GALV.POST SCH.40
6'-0" HIGH CHAIN LINK FENCE
LAND SIDE
AIR SIDE
6'-0"
8'-8"
10'-6"
1 5/8" Ø GALV. FRAME SCH. 40
1/4" A36 GALVANIZED STEEL BASE PLATE. SEE NOTE 1
1 5/8" EXTENSION BAND (TYP.)
2 1/2" Ø GALVANIZED GUIDE POST WEDGE BOLT
2'-8"
PROVIDE ADDITIONAL CHAIN LINK FENCE FABRIC TO OVERLAP AND BE SECURELY FASTENED TO FACE OF BARRIER ONLY IF VERTICAL PLANE OF THE FENCE FRAME IS NOT IN LINE WITH THE BARRIER EDGE.

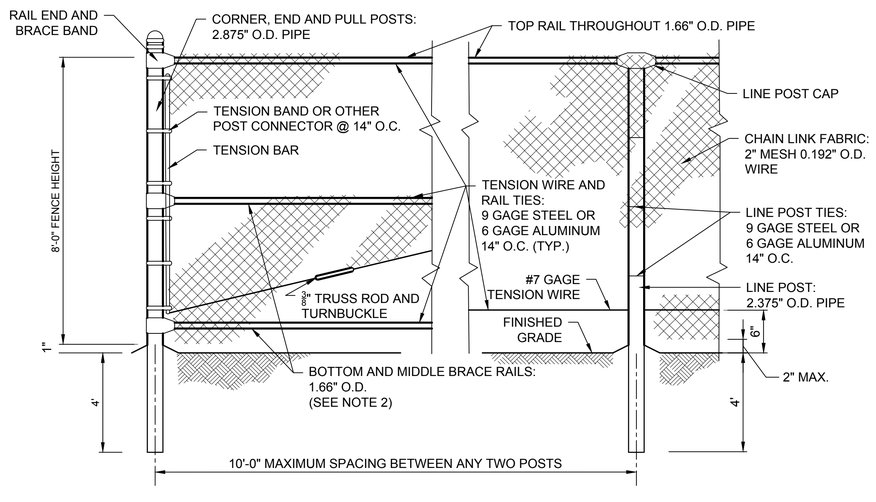

BARBED WIRE SEE DETAIL THIS SHEET
HEIGHT VARIES. PROVIDE TRANSITION
FENCE POST
OVERLAP FENCE FABRIC 2' MIN. WITH CONCRETE BARRIER FENCE FABRIC. SECURE WITH 9" GAGE TIES, 16" Ø O.C. EACH WAY
GALVANIZED FRAME
PIPE WELDED TO BASE PLATE
LINE POST
CONCRETE BARRIER
DRIVEN POST AT BARRIER END (MAXIMUM GAP 2")
BASE PLATE
PROVIDE ADDITIONAL CHAIN LINK FENCE FABRIC TO OVERLAP AND BE SECURELY FASTENED TO BARRIER
END POST

TEMPORARY FENCE ON CONCRETE BARRIER TO PERMANENT OR DRIVEN TEMPORARY FENCE TRANSITION DETAILS

NOT TO SCALE
(INCIDENTAL TO ITEM M-120-1)


45° BARB ARM ON CORNER POST BISECTS ANGLE OF INTERSECTION OF FENCE LINES IN PLAN
45° BARB ARM FACING IN (TYP.)
INSTALL SOLAR POWERED RED FLASHING WARNING LIGHTS A MINIMUM OF 8' APART ALONG TOP OF FENCE
12"
3 LINES BARBED WIRE
6"
6"
WELD ARM TO CLOSURE PLATE

DETAIL WITH BARBWIRE TOP


RAIL END AND BRACE BAND
CORNER, END AND PULL POSTS: 2.875" O.D. PIPE
TOP RAIL THROUGHOUT 1.66" O.D. PIPE
LINE POST CAP
TENSION BAND OR OTHER POST CONNECTOR @ 14" O.C.
TENSION BAR
CHAIN LINK FABRIC: 2" MESH 0.192" O.D. WIRE
8'-0" FENCE HEIGHT
TENSION WIRE AND RAIL TIES: 9 GAGE STEEL OR 6 GAGE ALUMINUM 14" O.C. (TYP.)
LINE POST TIES: 9 GAGE STEEL OR 6 GAGE ALUMINUM 14" O.C.
#7 GAGE TENSION WIRE
3/8" TRUSS ROD AND TURNBUCKLE
LINE POST: 2.375" O.D. PIPE
FINISHED GRADE
6"
1"
4'
BOTTOM AND MIDDLE BRACE RAILS: 1.66" O.D. (SEE NOTE 2)
2" MAX.
4'
10'-0" MAXIMUM SPACING BETWEEN ANY TWO POSTS

TERMINAL POST DETAIL

LINE POST DETAIL

TEMPORARY 8-FT CHAIN LINK FENCE WITH BARBWIRE DETAIL

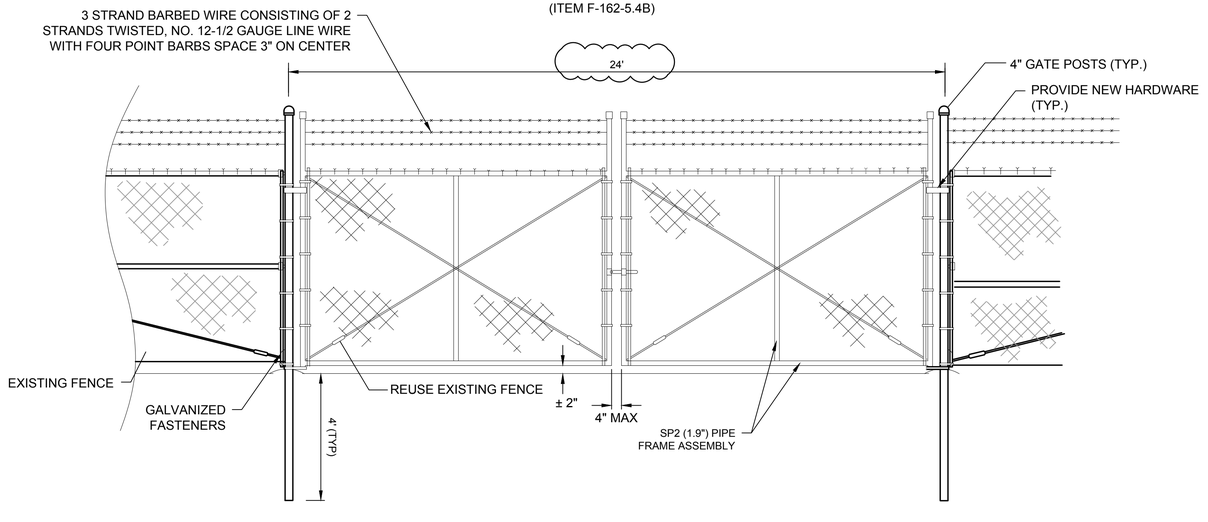
NOT TO SCALE
(ITEM F-162-5.4A)

CONCRETE BARRIER NOTES:

1. STEEL PLATE SHALL BE ASTM A36M, A572M, GRADE 345 OR A588M.
2. REINFORCING BARS SHALL BE ASTM A615, GRADE 60.
3. CONCRETE BARRIER SHALL BE HAVE A 28-DAY DESIGN COMPRESSIVE STRENGTH OF 4000 PSI. CONCRETE SHALL CONSIST OF CEMENT TYPE I CONFORMING TO ASTM C150.
4. CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1 1/2" (MIN).
5. A MINIMUM OF (2) TWO RECESSED LIFTING DEVICES SHALL BE USED ON EACH SECTION. EACH LIFTING DEVICE SHALL HAVE A MINIMUM CAPACITY OF 6 TONS.
6. TUBE STEEL SHALL BE ASTM A500, GRADE B OR C.
7. 2 5/8" x 5 1/2" DRAINAGE POCKETS - ONE REQUIRED FOR 8' AND 10' LENGTHS, TWO OTHERWISE.
8. AFTER A BARRIER UNIT HAS BEEN PLACED AND THE CONNECTION KEY INSERTED, REMOVE ANY SLACK IN THE JOINT BY PULLING THE UNIT IN A DIRECTION PARALLEL TO ITS LONGITUDINAL AXIS.
9. THE PRECAST CONCRETE BARRIER SHALL BE CAST IN STEEL FORMS.
10. CONCRETE BARRIER SHALL BE PRECAST UNITS OF ONE OF THE FOLLOWING NOMINAL LENGTHS 8', 10', 12', 14', 16', 18' AND 20'. HOWEVER OTHER LENGTHS MAY BE USED TO MEET FIELD CONDITIONS, THE NUMBER AND PLACEMENT OF THE 4B4 AND 4B5 BARS WILL VARY WITH THE LENGTH OF THE BARRIER UNIT AS SHOWN ON THE TABLE OF VARIABLE BARS, THE 6B2 AND 6B3 BARS SHALL BE 10" SHORTER THAN THE NOMINAL LENGTH OF THE BARRIER UNITS.
11. WELDING AND FABRICATION OF STEEL STRUCTURES SHALL BE IN ACCORDANCE WITH SECTIONS 1 THRU 6 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE AND SECTION 10 OF THE ANSI/AWS D.1 STRUCTURAL WELDING CODE. SURFACES TO BE WELDED SHALL BE FREE OF SCALE, SLAG, RUST, MOISTURE, GREASE, OR ANY OTHER MATERIAL THAT WILL PREVENT PROPER WELDING OR PRODUCE OBJECTIONAL FUMES. WELDING SHALL BE SHIELDED METAL ARC WELDING USING PROPERLY DRIED 5/32"Ø E7018 ELECTRODES.
12. TEMPORARY FENCING SHALL BE CONNECTED TO THE EXISTING FENCE WITHOUT ANY HOLES OR GAPS. TEMPORARY FENCING MUST MAINTAIN SECURITY OF THE AIRPORT OPERATIONS AREA (AOA).

TEMPORARY 8FT CHAIN LINK FENCE WITH BARBWIRE ON BARRICADE DETAIL

NOT TO SCALE
(ITEM F-162-5.4B)


3 STRAND BARBED WIRE CONSISTING OF 2 STRANDS TWISTED, NO. 12-1/2 GAUGE LINE WIRE WITH FOUR POINT BARBS SPACE 3" ON CENTER
24'
4" GATE POSTS (TYP.)
PROVIDE NEW HARDWARE (TYP.)
EXISTING FENCE
GALVANIZED FASTENERS
REUSE EXISTING FENCE
± 2"
4" MAX
4' (TYP.)
SP2 (1.9") PIPE FRAME ASSEMBLY

INSTALL TEMPORARY SWING GATE

NOT TO SCALE
(ITEM F-162-5.3)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

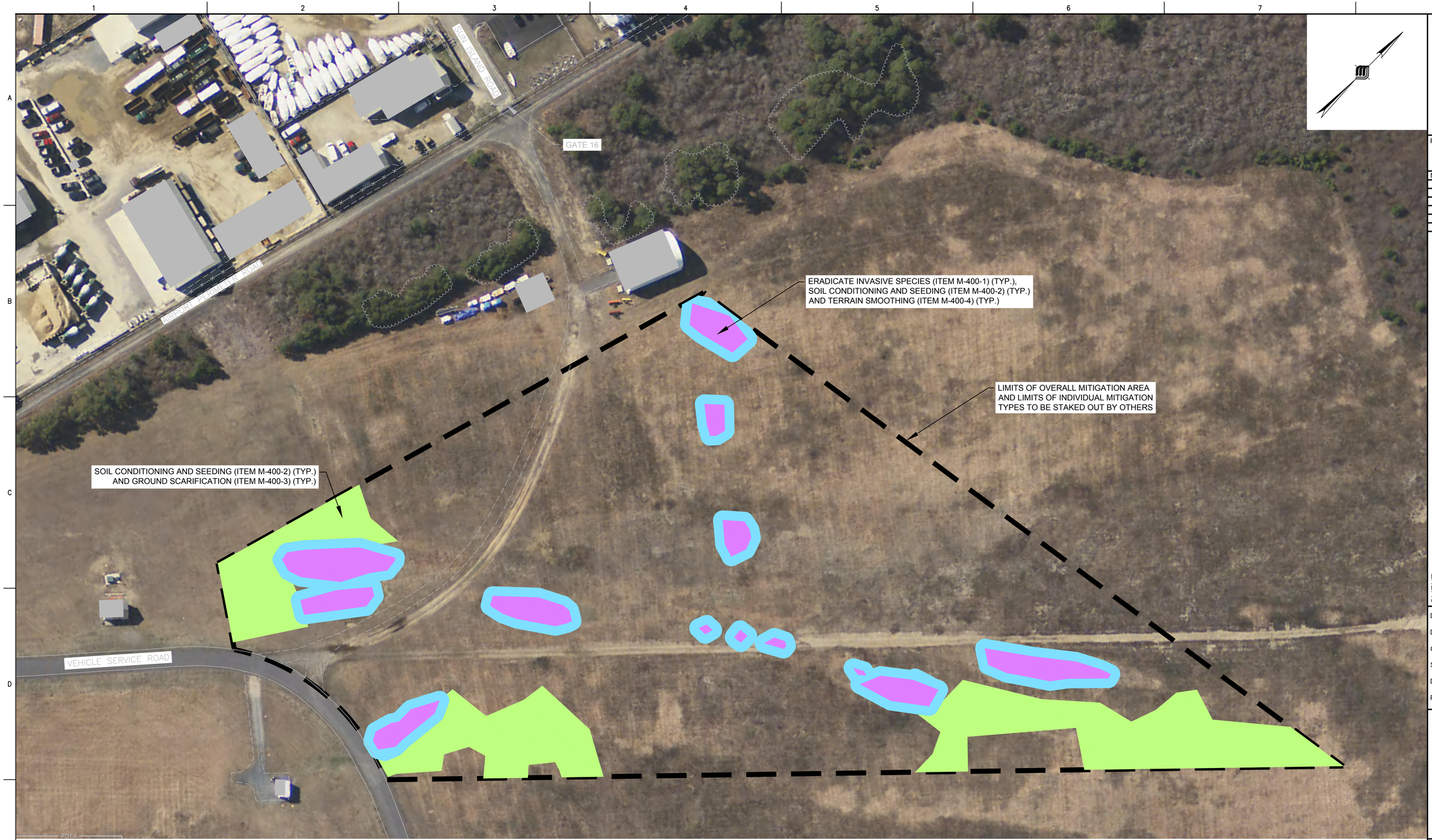
PHASING NOTES AND DETAILS (SHEET 2 OF 2)

DRAWING NUMBER

CS-12

19 OF 72

K:\NANTUCKET\T1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07 DETS.DWG


GATE 16
SAW ISLAND ROAD
AIRPORT TERMINAL ROAD
ERADICATE INVASIVE SPECIES (ITEM M-400-1) (TYP.),
SOIL CONDITIONING AND SEEDING (ITEM M-400-2) (TYP.)
AND TERRAIN SMOOTHING (ITEM M-400-4) (TYP.)
LIMITS OF OVERALL MITIGATION AREA
AND LIMITS OF INDIVIDUAL MITIGATION
TYPES TO BE STAKED OUT BY OTHERS
SOIL CONDITIONING AND SEEDING (ITEM M-400-2) (TYP.)
AND GROUND SCARIFICATION (ITEM M-400-3) (TYP.)
VEHICLE SERVICE ROAD
ROFA

LEGEND:

- ERADICATE INVASIVE SPECIES (ITEM M-400-1)
- SOIL CONDITIONING AND SEEING AND GROUND SCARIFICATION (ITEMS M-400-2, M-400-3)
- TERRAIN SMOOTHING (ITEM M-400-4)

0 50 100 150 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=50'
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

ENVIRONMENTAL MITIGATION

DRAWING NUMBER

EV-01

20 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-ENVR.DWG

DEMOLITION TABLE		
Point #	Northing	Easting
1	91108.51	1758208.98
2	91101.51	1758216.06
3	91538.28	1758648.15
4	91545.08	1758641.29
5	91472.04	1758140.01
6	91514.69	1758088.75
7	91625.54	1757980.60

NO CLEARING AND GRUBBING OR REMOVAL OF TREES SHALL BE PERMITTED BETWEEN APRIL 15 AND OCTOBER 31

EXISTING AIRPORT PERIMETER ROAD TO REMAIN AND BE PROTECTED (INCIDENTAL TO ITEM M-120-1)

CLEARING AND GRUBBING LIMITS AT VSR (TYP.) (BASE BID)

GRAVEL DRIVE

INSTALL SILT FENCE 3' INSIDE TEMPORARY FENCE (TYP.) SEE SHEETS CS-03 AND CS-04 FOR TEMPORARY FENCE LAYOUT. SEE DETAIL, SHEET DE-03 (BASE BID) (ITEM C-102-5.1D)

CLEAR AND GRUB TREES AND BRUSH (BASE BID) (ITEM P-151-4.2)

LIMITS OF DISTURBANCE (TYP.) (BASE BID)

EDGE OF NEW PAVEMENT

CB 1073
RIM=16.45
COULD NOT OPEN

REMOVE AND DISPOSE OF EXISTING DRAINAGE STRUCTURE (TYP.) (BASE BID) (INCIDENTAL TO ITEM P-101-5.3)

REMOVE AND DISPOSE OF IRRIGATION CONTROL VALVE (BASE BID) (INCIDENTAL TO ITEM P-101-5.3)

PROTECT EXISTING ELECTRICAL HANDHOLE TO REMAIN (BASE BID) (INCIDENTAL TO ITEM M-120-1)

SPLICE NEW CABLE AND CONDUIT INTO EXISTING TAXIWAY CIRCUIT AT NEW EDGE LIGHT LOCATION (TYP.) (BASE BID) (INCIDENTAL TO ITEM L-108-5.2)

REMOVE AND DISPOSE OF CABLE AND CONDUIT (TYP.) (BASE BID) (ITEM L-110-5.4)

PROTECT EXISTING EDGE LIGHT AND BASE TO REMAIN (BASE BID) (INCIDENTAL TO ITEM M-120-1)

2" COLD MILL, STOCKPILE PAVEMENT MILLINGS AS DIRECTED BY ACK (TYP.) (BASE BID) (ITEM P-101-5.2)

TAXIWAY E

REMOVE AND STORE EXISTING TAXIWAY EDGE LIGHTS, TRANSFORMERS, AND BASE CANS (TYP.) (BASE BID) (ITEM L-125-5.4)

REMOVE AND STORE EXISTING TAXIWAY EDGE LIGHTS, TRANSFORMERS, AND BASE CANS (TYP.) (BASE BID) (ITEM L-125-5.4)

REMOVE AND DISPOSE OF CABLE AND CONDUIT (TYP.) (BASE BID) (ITEM L-110-5.4)

REMOVE AND DISPOSE OF EXISTING AIRFIELD GUIDANCE SIGN AND BASE (TYP.) (BASE BID) (ITEM L-125-5.9)

REMOVE AND DISPOSE OF CABLE, CONDUIT TO REMAIN (TYP.) (BASE BID) (ITEM L-110-5.5)

PROTECT EXISTING RUNWAY GUARD LIGHT CONDUIT (TYP.) (BASE BID) (INCIDENTAL TO ITEM M-120-1)

SPLICE NEW CABLE INTO EXISTING TAXIWAY CIRCUIT AT NEW EDGE LIGHT LOCATION (TYP.) (BASE BID) (INCIDENTAL TO ITEM L-108-5.2)

AIRFIELD WIND CONE

KEEP OUT NAV AID CRITICAL AREA

MATCHLINE (SEE SHEET DE-02)

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- LOD — LIMITS OF DISTURBANCE
- SF — INSTALL SILT FENCE (ITEM C-102-5.1D)
- EDGE OF NEW PAVEMENT
- REMOVE AND DISPOSE OF CABLE, CONDUIT TO REMAIN (ITEM L-110-5.5)
- CLEAR AND GRUB (ITEM P-151-4.2)
- COLD MILL EXISTING PAVEMENT (ITEM P-101-5.2)
- REMOVE AND DISPOSE OF CABLE AND CONDUIT (ITEM L-110-5.4)
- REMOVE AND DISPOSE OF AIRFIELD GUIDANCE SIGN (ITEM L-125-5.9)
- REMOVE AND STORE TAXIWAY EDGE LIGHT AND BASE (ITEM L-125-5.4)
- REMOVE AND DISPOSE OF IRRIGATION CONTROL VALVE (INCIDENTAL TO ITEM P-101-5.3)
- REMOVE AND DISPOSE OF DRAINAGE STRUCTURE (ITEM P-101-5.3)

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH FAA PRIOR TO DISTURBING FAA CABLES OR HANDHOLES.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES.
3. THE OWNER HAS THE FIRST RIGHT OF REFUSAL FOR ALL REMOVED EQUIPMENT. IF THE OWNER ELECTS TO KEEP THE REMOVED EQUIPMENT, THE CONTRACTOR SHALL CAREFULLY REMOVE THE EQUIPMENT TO PREVENT DAMAGE, PACKAGE THE EQUIPMENT AND DELIVER TO A LOCATION AT THE AIRPORT DESIGNATED BY THE RPR. EQUIPMENT NOT RETAINED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED/RECYCLED OFF AIRPORT IN A LEGAL MANNER.
4. PRIOR TO WORK ON ANY ELECTRICAL CIRCUITS, THE CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE ELECTRICAL CIRCUIT. IF PART OF THE ELECTRICAL CIRCUIT LOCK-OUT/TAG-OUT IS REQUIRED TO POWER ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL DISCONNECT THE PORTION TO BE REMOVED AND RE-ENERGIZE THE PORTION TO REMAIN.
5. UNDERGROUND CABLES NOT IN USE BY THE AIRPORT/FAA OR OTHERS SHALL BE REMOVED TO THE LIMITS OF WORK SHOWN AT NO ADDITIONAL COST TO THE OWNER. UNUSED CABLES BEYOND THE LIMITS OF WORK WILL BE ABANDONED IN PLACE.
6. PRIOR TO EXCAVATION, ALL EXISTING TOPSOIL SHALL BE STRIPPED, REMOVED, AND STOCKPILED IN THE DESIGNATED STOCKPILE AREA FOR REUSE. (ITEM P-152-4.1a).
7. TAXIWAY E EDGE LIGHTS AND SIGNS ON TW E-S CIRCUIT TO REMAIN OPERATIONAL UNTIL CLOSURE OF TW E.
8. REMOVAL OF EXISTING ASPHALT PAVEMENT (APPROX. 3") AND BASE COURSE (APPROX. 6") SHALL BE INCIDENTAL TO THE ITEM P-101-5.1, PAVEMENT REMOVAL. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR PAVEMENT OR BASE COURSE EXCEEDING THESE DEPTHS.

0 40 80 120 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
DEMOLITION AND EROSION CONTROL PLAN (SHEET 1 OF 2)

DRAWING NUMBER
DE-01
21 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-DEMO.DWG

EXISTING AIRPORT PERIMETER ROAD TO REMAIN AND BE PROTECTED (INCIDENTAL TO ITEM M-120-1)

NO CLEARING AND GRUBBING OR REMOVAL OF TREES SHALL BE PERMITTED BETWEEN APRIL 15 AND OCTOBER 31

CLEARING AND GRUBBING LIMITS AT VSR (TYP.) (BASE BID)

SAWCUT, REMOVE, AND DISPOSE OF EXISTING ASPHALT PAVEMENT AND BASE COURSE (BASE BID) (ITEM P-101-5.1)

EXISTING FIRE HYDRANT TO REMAIN AND BE PROTECTED (BASE BID) (INCIDENTAL TO ITEM M-120-1)

SEE SHEET EL-03 FOR SILT FENCE LAYOUT FOR CONDUIT TRENCHING (BASE BID)

REMOVE AND CAP IRRIGATION WELL (BASE BID) (INCIDENTAL TO ITEM M-250-1)

EDGE OF NEW PAVEMENT (BASE BID)

CONTRACTOR SHALL PROTECT AND REPAIR ANY DAMAGES TO THE EXISTING ASPHALT AT NO ADDITIONAL COST TO THE OWNER (TYP.) (BASE BID) (INCIDENTAL TO ITEM P-101-5.1)

CONTRACTOR SHALL TERMINATE LIMITS OF PIPE DEMOLITION AT EDGE OF PAVEMENT. FILL REMAINING PIPE WITH 4000 PSI CONCRETE AND CAP (BASE BID) (ITEM P-101-5.3)

SAWCUT EXISTING ASPHALT, PROVIDE A SMOOTH VERTICAL FACE ON EXISTING PAVEMENT (TYP.) SEE PAVEMENT TRANSITION DETAIL ON SHEET TS-01 (BASE BID) (INCIDENTAL TO ITEM P-101-5.1)

CLEAR AND GRUB TREES AND BRUSH (BASE BID) (ITEM P-151-4.2)

SAWCUT, REMOVE, AND DISPOSE OF EXISTING ASPHALT PAVEMENT AND BASE COURSE (BASE BID) (ITEM P-101-5.1)

REMOVE AND DISPOSE OF EXISTING DRAINAGE STRUCTURE (TYP.) (BASE BID) (INCIDENTAL TO ITEM P-101-5.3)

REMOVE AND DISPOSE OF CABLE AND CONDUIT (TYP.) (BASE BID) (ITEM L-110-5.4)

REMOVE AND DISPOSE OF EXISTING TAXIWAY EDGE LIGHT, TRANSFORMER, AND BASE CAN (TYP.) (BASE BID) (ITEM L-125-5.7)

REMOVE AND DISPOSE OF IRRIGATION CONTROL VALVE (TYP.) (BASE BID) (INCIDENTAL TO ITEM P-101-5.3)

REMOVE AND DISPOSE OF AIRCRAFT TIE DOWN ANCHORS (TYP.) (BASE BID) (ITEM M-100-1)

REMOVE AND DISPOSE OF EXISTING CONCRETE ENCASED DUCT BANK (TYP.) (BASE BID) (ITEM L-110-5.6)

REMOVE AND DISPOSE OF EXISTING ELECTRICAL HANDHOLE AND FRAME & COVER (TYP.) (BASE BID) (ITEM L-115-5.2)

INSTALL SILT FENCE 3' INSIDE TEMPORARY FENCE (TYP.) SEE SHEET CS-03 FOR TEMPORARY FENCE LAYOUT. SEE DETAIL, SHEET DE-03 (BASE BID) (ITEM C-102-5.1D)

REMOVE AND DISPOSE OF EXISTING AIRFIELD GUIDANCE SIGN & BASE(TYP.) (BASE BID) (ITEM L-125-5.9)

PROTECT EXISTING EDGE LIGHT AND BASE TO REMAIN (BASE BID) (INCIDENTAL TO ITEM M-120-1)

LIMITS OF DISTURBANCE (TYP.) (BASE BID)

PROTECT EXISTING EDGE LIGHT AND BASE TO REMAIN (BASE BID) (INCIDENTAL TO ITEM M-120-1)

REMOVE AND STORE EXISTING FIELD ARRESTOR AND BASE (TYP.) (BASE BID) (ITEM L-125-5.6)

2" COLD MILL, STOCKPILE PAVEMENT MILLINGS AS DIRECTED BY ACK (TYP.) (BASE BID) (ITEM P-101-5.2)

SPLICE NEW CABLE INTO EXISTING TAXIWAY CIRCUIT AT EXISTING EDGE LIGHT (TYP.) (BASE BID) (INCIDENTAL TO ITEM L-108-5.2)

PROTECT EXISTING EDGE LIGHT AND BASE TO REMAIN (BASE BID) (INCIDENTAL TO ITEM M-120-1)

PROTECT EXISTING RUNWAY GUARD LIGHT CONDUIT (TYP.) (BASE BID) (INCIDENTAL TO ITEM M-120-1)

REMOVE AND DISPOSE OF CABLE, CONDUIT TO REMAIN (TYP.) (BASE BID) (ITEM L-110-5.5)

REMOVE AND STORE EXISTING TAXIWAY EDGE LIGHTS, TRANSFORMERS, AND BASE CANS (TYP.) (BASE BID) (ITEM L-125-5.4)

CONTRACTOR SHALL TERMINATE LIMITS OF PIPE DEMOLITION AT EDGE OF PAVEMENT. FILL EXISTING PIPE WITH 4000 PSI CONCRETE AND CAP (BASE BID) (INCIDENTAL TO ITEM P-101-5.3)

PROTECT EXISTING AIRFIELD GUIDANCE SIGN & BASE (BASE BID) (INCIDENTAL TO ITEM M-120-1)

REMOVE AND DISPOSE OF EXISTING DRAINAGE PIPE (TYP.) (BASE BID) (INCIDENTAL TO ITEM P-101-5.3)

REMOVE AND STORE EXISTING AIRFIELD GUIDANCE SIGN & BASE (TYP.) (BASE BID) (ITEM L-125-5.5)

EXISTING SOUTH APRON

TAXIWAY J

TAXIWAY E

MATCHLINE (SEE SHEET DE-01)

DEMOLITION TABLE		
Point #	Northing	Easting
8	92493.94	1758878.52
9	92540.90	1758941.59
10	92530.60	1758940.49
11	92540.98	1758969.53
12	92520.02	1758971.18
13	92455.10	1759034.65

DEMOLITION TABLE		
Point #	Northing	Easting
14	92462.11	1759041.59
15	92338.34	1759166.59
16	92332.21	1759420.75
17	92325.18	1759427.85
18	91941.62	1759048.10
19	91948.39	1759041.47

LEGEND

- TAXILANE SAFETY AREA
- TAXIWAY OBJECT FREE AREA
- LIMITS OF DISTURBANCE
- INSTALL SILT FENCE (ITEM C-102-5.1D)
- EDGE OF NEW PAVEMENT
- REMOVE AND DISPOSE OF CABLE, CONDUIT TO REMAIN (ITEM L-110-5.5)
- 2" APRON COLD MILLING (ITEM P-101-5.2)
- PAVEMENT REMOVAL (ITEM P-101-5.1)
- CLEAR AND GRUB (ITEM P-151-4.2)
- REMOVE AND DISPOSE OF DRAINAGE PIPE (ITEM P-101-5.3)
- REMOVE AND DISPOSE OF CONCRETE ENCASED DUCT BANK (ITEM L-110-5.6)
- REMOVE AND DISPOSE OF CABLE AND CONDUIT (ITEM L-110-5.4)
- REMOVE AND DISPOSE OF ELECTRICAL HANDHOLE (ITEM L-115-5.2)
- REMOVE AND DISPOSE OF AIRFIELD GUIDANCE SIGN (ITEM L-125-5.9)
- REMOVE AND STORE AIRFIELD GUIDANCE SIGN (ITEM L-125-5.5)
- REMOVE AND DISPOSE OF DRAINAGE STRUCTURE (ITEM P-101-5.3)
- REMOVE AND DISPOSE OF TAXIWAY EDGE LIGHT AND BASE (ITEM L-125-5.7)
- REMOVE AND STORE TAXIWAY EDGE LIGHT AND BASE (ITEM L-125-5.4)
- REMOVE AND STORE FIELD ARRESTOR AND BASE (ITEM L-125-5.6)
- REMOVE AND DISPOSE OF TIE DOWN ANCHORS (ITEM M-100-1)
- REMOVE AND DISPOSE OF IRRIGATION CONTROL VALVE (INCIDENTAL TO ITEM P-101-5.3)

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH FAA PRIOR TO DISTURBING FAA CABLES OR HANDHOLES.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES.
3. THE OWNER HAS THE FIRST RIGHT OF REFUSAL FOR ALL REMOVED EQUIPMENT. IF THE OWNER ELECTS TO KEEP THE REMOVED EQUIPMENT, THE CONTRACTOR SHALL CAREFULLY REMOVE THE EQUIPMENT TO PREVENT DAMAGE, PACKAGE THE EQUIPMENT AND DELIVER TO A LOCATION AT THE AIRPORT DESIGNATED BY THE RPR. EQUIPMENT NOT RETAINED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED/RECYCLED OFF AIRPORT IN A LEGAL MANNER.
4. PRIOR TO WORK ON ANY ELECTRICAL CIRCUITS, THE CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE ELECTRICAL CIRCUIT. IF PART OF THE ELECTRICAL CIRCUIT LOCK-OUT/TAG-OUT IS REQUIRED TO POWER ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL DISCONNECT THE PORTION TO BE REMOVED AND RE-ENERGIZE THE PORTION TO REMAIN.
5. UNDERGROUND CABLES NOT IN USE BY THE AIRPORT/FAA OR OTHERS SHALL BE REMOVED TO THE LIMITS OF WORK SHOWN AT NO ADDITIONAL COST TO THE OWNER. UNUSED CABLES BEYOND THE LIMITS OF WORK WILL BE ABANDONED IN PLACE.
6. PRIOR TO EXCAVATION, ALL EXISTING TOPSOIL SHALL BE STRIPPED, REMOVED, AND STOCKPILED IN THE DESIGNATED STOCKPILE AREA FOR REUSE. (ITEM P-152-4.1a).
7. TAXIWAY E EDGE LIGHTS AND SIGNS ON TW E-S CIRCUIT TO REMAIN OPERATIONAL UNTIL CLOSURE OF TW E.
8. REMOVAL OF EXISTING ASPHALT PAVEMENT (APPROX. 3") AND BASE COURSE (APPROX. 6") SHALL BE INCIDENTAL TO THE ITEM P-101-5.1, PAVEMENT REMOVAL. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR PAVEMENT OR BASE COURSE EXCEEDING THESE DEPTHS.

0 40 80 120 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

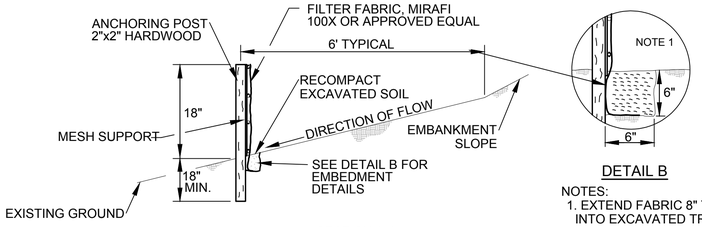
DEMOLITION AND EROSION CONTROL PLAN (SHEET 2 OF 2)

DRAWING NUMBER

DE-02

22 OF 72

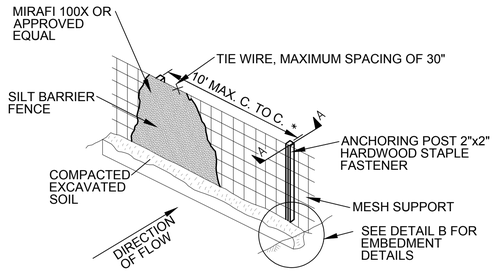
K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-DEMO.DWG



SECTION A-A

DETAIL B

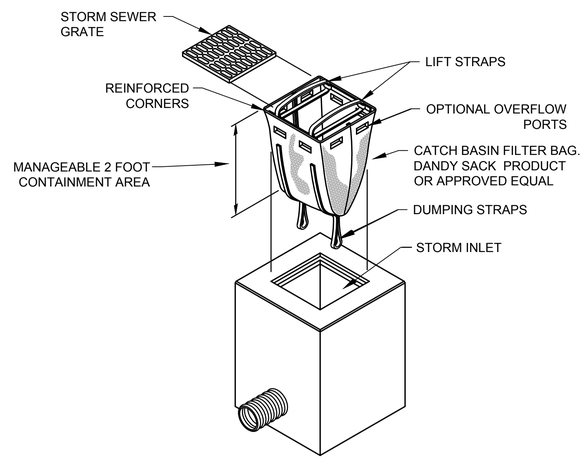
NOTES:
1. EXTEND FABRIC 8" TO 12" INTO EXCAVATED TRENCH



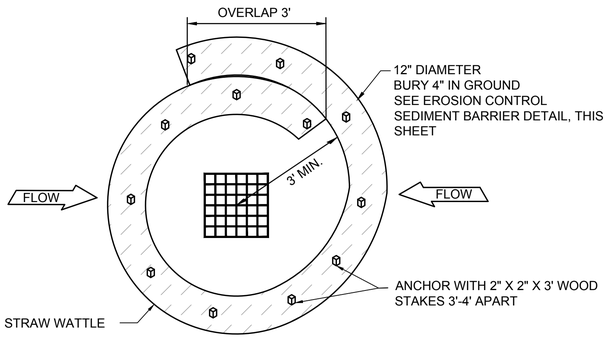
NOTES:

1. FILTER FABRIC FENCE MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF(1/2) THE ABOVE GROUND HEIGHT OF THE FENCE.
3. ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.

SILT FENCE
NOT TO SCALE
(ITEM C-102-5.1D)



INLET PROTECTION (FILTER BAG) INSTALLATION
NOT TO SCALE
(ITEM C-102-5.1B)



PLAN VIEW

SEDIMENT BARRIER INLET PROTECTION
N.T.S.
(ITEM C-102-5.1B)

DEMOLITION NOTES:

1. FOR GENERAL NOTES, LEGEND AND OTHER INFORMATION SEE SHEETS GN-01 AND GN-02 .
2. FOR CONSTRUCTION SAFETY AND PHASING PLAN, NOTES AND DETAILS SEE SHEETS CS-01 THROUGH CS-05.
3. PRIOR TO THE START OF DEMOLITION, THE CONTRACTOR SHALL LAYOUT AND MARK THE LIMITS OF ALL DEMOLITION IN THE FIELD FOR REVIEW AND APPROVAL BY RPR.
4. THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION CONTROL MEASURES AS DEPICTED ON THE PLANS, AS SPECIFIED WITHIN THE PROJECT SPECIFICATIONS, REQUIRED BY ENVIRONMENTAL PERMITS, BY THE LATEST BEST MANAGEMENT PRACTICES (BMP'S) AND AS DIRECT BY THE RPR, PRIOR TO THE START OF ANY DEMOLITION. FOR TEMPORARY EROSION CONTROL MEASURES AND DETAILS SEE SHEETS DE-01 THROUGH DE-03.
5. THE CONTRACTOR SHALL SEQUENCE THE DEMOLITION WORK AS REQUIRED TO PERMIT THE ORDERLY PROGRESSION OF THE WORK IN ACCORDANCE WITH PLANS, SPECIFICATIONS AND THE CONSTRUCTION SAFETY AND PHASING PLAN. WORK WITHIN THE DESIGNATED WORK AREAS IS NOT INTENDED TO BE SEQUENTIAL.
6. THE CONTRACTOR SHALL MAINTAIN AND PROTECT THE EXISTING DRAINAGE SYSTEMS AND OTHER UNDERGROUND UTILITIES DURING CONSTRUCTION. IF REQUIRED THE CONTRACTOR SHALL PROVIDE TEMPORARY CONNECTIONS, DRAINPIPE AND OTHER WORK AS REQUIRED, AND AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
7. EXISTING TAXIWAY LIGHTS AND SIGNS TO BE REMOVED AND NOT RELOCATED SHALL REMAIN THE PROPERTY OF THE AIRPORT. THE CONTRACTOR SHALL CAREFULLY REMOVE THE ENTIRE LIGHT BASE, STEM AND FIXTURE ASSEMBLY. PLACE THE SALVAGED COMPONENTS, LIGHTS, ISOLATION TRANSFORMERS, AND SIGNS NEATLY ON PALLETS AND DELIVER THEM TO A LOCATION DESIGNATED BY THE AIRPORT AT NO ADDITIONAL COST TO THE OWNER. CONCRETE LIGHT AND SIGN BASES SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR OFF OF AIRPORT PROPERTY IN A LEGAL MANNER.
8. THE AIRPORT RESERVES THE RIGHT TO RETAIN ANY REMOVED ITEMS THAT THEY CHOOSE.
9. PAVEMENT MILLINGS SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE TRANSPORTED AND STOCKPILED IN A LOCATION ON AIRPORT PROPERTY DESIGNATED BY THE OWNER AT NO ADDITIONAL COST.
10. SURPLUS MATERIAL(S) NOT INCORPORATED INTO THE NEW WORK, AND NOT RETAINED BY THE AIRPORT SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER OFF AIRPORT PROPERTY AT NO ADDITIONAL COST TO THE OWNER.
11. PIPES, DUCTS, AND STRUCTURES LOCATED WITHIN THE LIMITS OF EXCAVATION SHALL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT RATHER SHALL BE CONSIDERED INCIDENTAL TO ITEM P-101-5.3 "UNCLASSIFIED EXCAVATION".

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

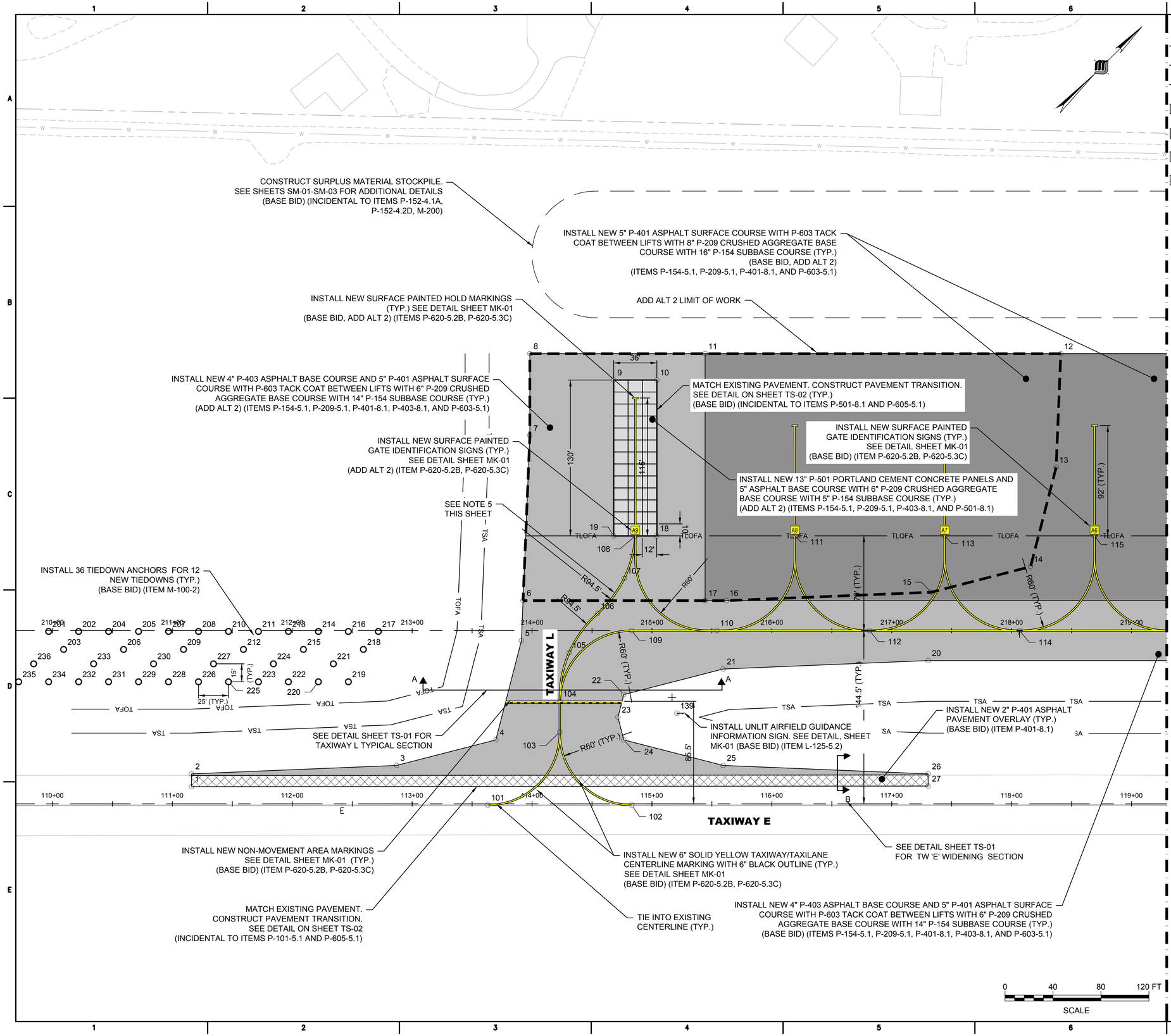
DEMOLITION NOTES AND EROSION CONTROL DETAILS

DRAWING NUMBER

DE-03

23 OF 72

K:\NANTUCKET\T1-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-DETS.DWG


CONSTRUCT SURPLUS MATERIAL STOCKPILE. SEE SHEETS SM-01-SM-03 FOR ADDITIONAL DETAILS (BASE BID) (INCIDENTAL TO ITEMS P-152-4.1A, P-152-4.2D, M-200)
INSTALL NEW 5" P-401 ASPHALT SURFACE COURSE WITH P-603 TACK COAT BETWEEN LIFTS WITH 8" P-209 CRUSHED AGGREGATE BASE COURSE WITH 16" P-154 SUBBASE COURSE (TYP.) (BASE BID, ADD ALT 2) (ITEMS P-154-5.1, P-209-5.1, P-401-8.1, AND P-603-5.1)
INSTALL NEW SURFACE PAINTED HOLD MARKINGS (TYP.) SEE DETAIL SHEET MK-01 (BASE BID, ADD ALT 2) (ITEMS P-620-5.2B, P-620-5.3C)
ADD ALT 2 LIMIT OF WORK
INSTALL NEW 4" P-403 ASPHALT BASE COURSE AND 5" P-401 ASPHALT SURFACE COURSE WITH P-603 TACK COAT BETWEEN LIFTS WITH 6" P-209 CRUSHED AGGREGATE BASE COURSE WITH 14" P-154 SUBBASE COURSE (TYP.) (ADD ALT 2) (ITEMS P-154-5.1, P-209-5.1, P-401-8.1, P-403-8.1, AND P-603-5.1)
MATCH EXISTING PAVEMENT. CONSTRUCT PAVEMENT TRANSITION. SEE DETAIL ON SHEET TS-02 (TYP.) (BASE BID) (INCIDENTAL TO ITEMS P-501-8.1 AND P-605-5.1)
INSTALL NEW SURFACE PAINTED GATE IDENTIFICATION SIGNS (TYP.) SEE DETAIL SHEET MK-01 (ADD ALT 2) (ITEM P-620-5.2B, P-620-5.3C)
SEE NOTE 5 THIS SHEET
INSTALL NEW SURFACE PAINTED GATE IDENTIFICATION SIGNS (TYP.) SEE DETAIL SHEET MK-01 (BASE BID) (ITEM P-620-5.2B, P-620-5.3C)
INSTALL NEW 13" P-501 PORTLAND CEMENT CONCRETE PANELS AND 5" ASPHALT BASE COURSE WITH 6" P-209 CRUSHED AGGREGATE BASE COURSE WITH 5" P-154 SUBBASE COURSE (TYP.) (ADD ALT 2) (ITEMS P-154-5.1, P-209-5.1, P-403-8.1, AND P-501-8.1)
INSTALL 36 TIEDOWN ANCHORS FOR 12 NEW TIEDOWNS (TYP.) (BASE BID) (ITEM M-100-2)
SEE DETAIL SHEET TS-01 FOR TAXIWAY L TYPICAL SECTION
INSTALL UNLIT AIRFIELD GUIDANCE INFORMATION SIGN. SEE DETAIL, SHEET MK-01 (BASE BID) (ITEM L-125-5.2)
INSTALL NEW 2" P-401 ASPHALT PAVEMENT OVERLAY (TYP.) (BASE BID) (ITEM P-401-8.1)
INSTALL NEW NON-MOVEMENT AREA MARKINGS SEE DETAIL SHEET MK-01 (TYP.) (BASE BID) (ITEM P-620-5.2B, P-620-5.3C)
MATCH EXISTING PAVEMENT. CONSTRUCT PAVEMENT TRANSITION. SEE DETAIL ON SHEET TS-02 (INCIDENTAL TO ITEMS P-101-5.1 AND P-605-5.1)
INSTALL NEW 6" SOLID YELLOW TAXIWAY/TAXILANE CENTERLINE MARKING WITH 6" BLACK OUTLINE (TYP.) SEE DETAIL SHEET MK-01 (BASE BID) (ITEM P-620-5.2B, P-620-5.3C)
TIE INTO EXISTING CENTERLINE (TYP.)
INSTALL NEW 4" P-403 ASPHALT BASE COURSE AND 5" P-401 ASPHALT SURFACE COURSE WITH P-603 TACK COAT BETWEEN LIFTS WITH 6" P-209 CRUSHED AGGREGATE BASE COURSE WITH 14" P-154 SUBBASE COURSE (TYP.) (BASE BID) (ITEMS P-154-5.1, P-209-5.1, P-401-8.1, P-403-8.1, AND P-603-5.1)
SEE DETAIL SHEET TS-01 FOR TW 'E' WIDENING SECTION
MATCHLINE (SEE SHEET GE-02)
TAXIWAY L
TAXIWAY E
TLOFA
TSA
TOFA
R94.5'
R60' (TYP.)
130'
114'
36'
79' (TYP.)
92' (TYP.)
144.5' (TYP.)
85.5'
25' (TYP.)
0 40 80 120 FT
SCALE

LEGEND

- TSA — TAXILANE SAFETY AREA
- TLOFA — TAIXLANE OBJECT FREE AREA
- TOFA — TAIXWAY OBJECT FREE AREA
- 9" FULL STRENGTH PAVEMENT
- 5" FULL STRENGTH PAVEMENT
- NEW PORTLAND CEMENT CONCRETE
- NEW 2" MILL OVERLAY

NOTES:

1. PAVEMENT GEOMETRY DESIGNED TO ACCOMMODATE ADG 3 AIRCAFT.
2. CONCRETE HARDSTAND DESIGNED TO ACCOMODATE AIRBUS A220-300.
3. REFER TO DRAWING GP-01 FOR SURVEY CONTROL POINTS.
4. TURF TIE DOWN LAYOUT BASED OFF OF EXISTING TIEDOWN LAYOUT.
5. IF ADD ALT 2 IS NOT AWARDED THEN TAXIWAY PARKING LEAD IN CENTERLINES FOR PARKING POSITIONS A7, A8 AND A9 SHALL NOT BE INSTALLED.

GEOMETRY LAYOUT TABLE			GEOMETRY LAYOUT TABLE		
Point #	Northing	Easting	Point #	Northing	Easting
1	91101.51	1758216.06	15	91653.96	1758535.13
2	91108.97	1758208.52	16	91527.51	1758419.76
3	91235.43	1758323.89	17	91514.99	1758407.36
4	91309.26	1758367.03	18	91524.31	1758340.57
5	91382.68	1758323.20	19	91498.82	1758315.32
6	91407.12	1758300.49	20	91611.95	1758573.79
7	91508.05	1758206.65	21	91485.49	1758458.42
8	91556.12	1758158.13	22	91411.66	1758415.28
9	91590.31	1758222.97	23	91394.91	1758425.28
10	91615.89	1758248.30	24	91385.06	1758442.13
11	91659.98	1758261.01	25	91428.89	1758515.55
12	91870.74	1758469.81	26	91545.44	1758640.92
13	91801.22	1758534.44	27	91538.28	1758648.15
14	91727.80	1758578.26			

MARKINGS LAYOUT TABLE			MARKINGS LAYOUT TABLE		
Point #	Northing	Easting	Point #	Northing	Easting
101	91266.28	1758400.96	109	91453.93	1758382.05
102	91351.53	1758485.42	110	91504.37	1758432.02
103	91351.84	1758399.86	111	91606.15	1758421.65
104	91369.78	1758381.75	112	91594.95	1758521.76
105	91403.90	1758358.39	113	91694.95	1758509.62
106	91443.72	1758351.89	114	91683.75	1758609.73
107	91480.05	1758346.69	115	91783.75	1758597.59
108	91511.64	1758328.02	139	91432.24	1758457.60

TIEDOWN LAYOUT TABLE			TIEDOWN LAYOUT TABLE		
Point #	Northing	Easting	Point #	Northing	Easting
201	91107.93	1758040.25	219	91255.97	1758246.04
202	91125.69	1758057.85	220	91238.21	1758228.44
203	91106.25	1758059.70	221	91257.65	1758226.58
204	91143.45	1758075.44	222	91220.45	1758210.85
205	91161.21	1758093.04	223	91202.69	1758193.25
206	91141.77	1758094.89	224	91222.13	1758191.39
207	91178.97	1758110.63	225	91184.93	1758175.66
208	91196.73	1758128.22	226	91167.17	1758158.06
209	91177.29	1758130.08	227	91186.61	1758156.20
210	91214.49	1758145.82	228	91149.41	1758140.47
211	91232.25	1758163.41	229	91131.65	1758122.87
212	91212.81	1758165.27	230	91151.09	1758121.01
213	91250.01	1758181.01	231	91113.89	1758105.28
214	91267.77	1758198.60	232	91096.13	1758087.68
215	91248.33	1758200.46	233	91115.57	1758085.82
216	91285.53	1758216.20	234	91078.37	1758070.09
217	91303.29	1758233.79	235	91060.61	1758052.49
218	91283.85	1758235.65	236	91080.05	1758050.63

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

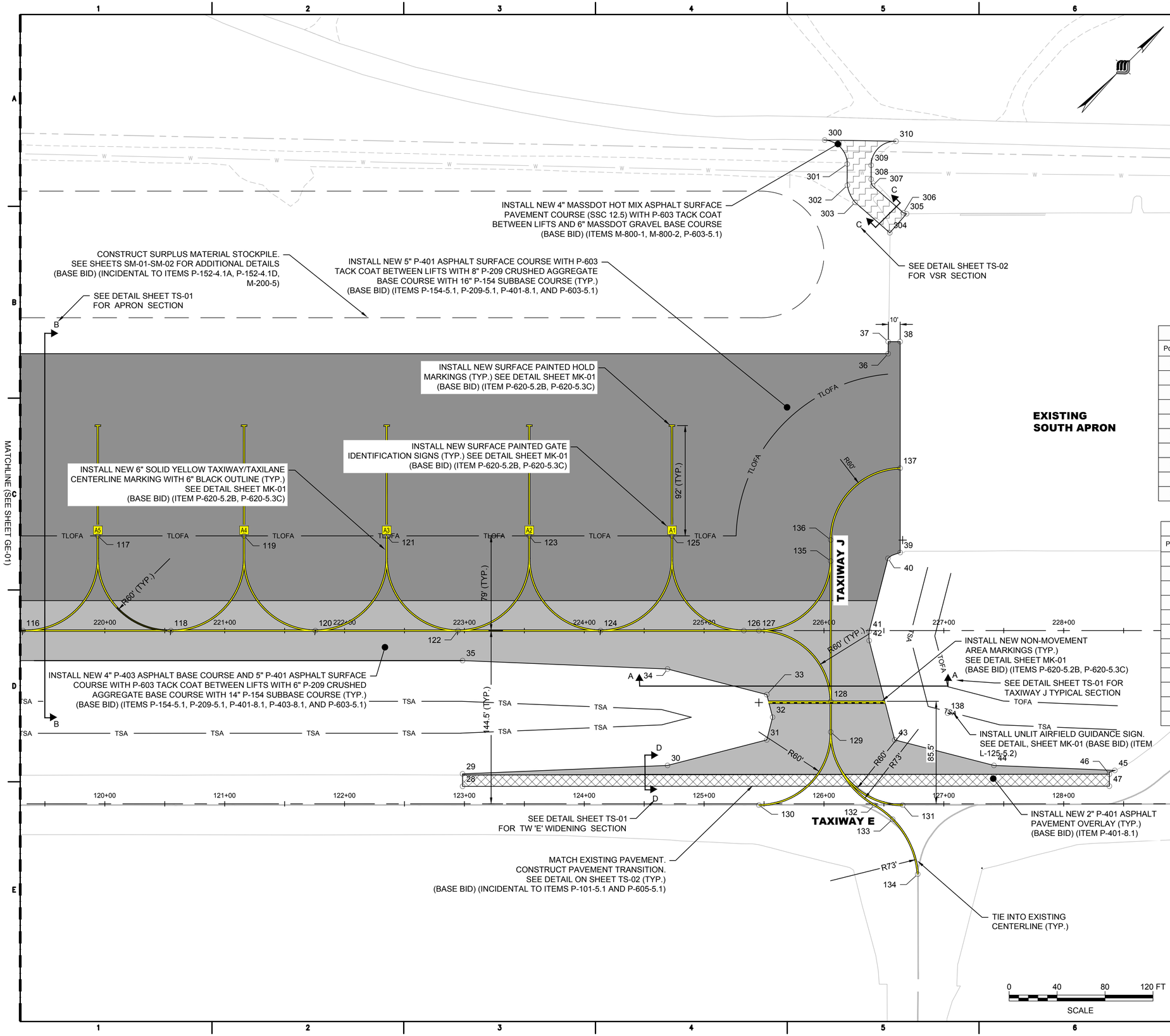
GEOMETRY AND MARKING PLAN (SHEET 1 OF 2)

DRAWING NUMBER

GE-01

24 OF 72

K:\NANTUCKET\T-18706.07-ACK SOUTH APRON EXPANSION\DRAWG\DRAWINGS\SHEET FILES\18706.07-GEOM.DWG


INSTALL NEW 4" MASSDOT HOT MIX ASPHALT SURFACE PAVEMENT COURSE (SSC 12.5) WITH P-603 TACK COAT BETWEEN LIFTS AND 6" MASSDOT GRAVEL BASE COURSE (BASE BID) (ITEMS M-800-1, M-800-2, P-603-5.1)
CONSTRUCT SURPLUS MATERIAL STOCKPILE. SEE SHEETS SM-01-SM-02 FOR ADDITIONAL DETAILS (BASE BID) (INCIDENTAL TO ITEMS P-152-4.1A, P-152-4.1D, M-200-5)
INSTALL NEW 5" P-401 ASPHALT SURFACE COURSE WITH P-603 TACK COAT BETWEEN LIFTS WITH 8" P-209 CRUSHED AGGREGATE BASE COURSE WITH 16" P-154 SUBBASE COURSE (TYP.) (BASE BID) (ITEMS P-154-5.1, P-209-5.1, P-401-8.1, AND P-603-5.1)
SEE DETAIL SHEET TS-01 FOR APRON SECTION
SEE DETAIL SHEET TS-02 FOR VSR SECTION
INSTALL NEW SURFACE PAINTED HOLD MARKINGS (TYP.) SEE DETAIL SHEET MK-01 (BASE BID) (ITEM P-620-5.2B, P-620-5.3C)
INSTALL NEW SURFACE PAINTED GATE IDENTIFICATION SIGNS (TYP.) SEE DETAIL SHEET MK-01 (BASE BID) (ITEM P-620-5.2B, P-620-5.3C)
INSTALL NEW 6" SOLID YELLOW TAXIWAY/TAXILANE CENTERLINE MARKING WITH 6" BLACK OUTLINE (TYP.) SEE DETAIL SHEET MK-01 (BASE BID) (ITEM P-620-5.2B, P-620-5.3C)
MATCHLINE (SEE SHEET GE-01)
EXISTING SOUTH APRON
TAXIWAY J
TAXIWAY E
INSTALL NEW NON-MOVEMENT AREA MARKINGS (TYP.) SEE DETAIL SHEET MK-01 (BASE BID) (ITEMS P-620-5.2B, P-620-5.3C)
SEE DETAIL SHEET TS-01 FOR TAXIWAY J TYPICAL SECTION
INSTALL UNLIT AIRFIELD GUIDANCE SIGN. SEE DETAIL, SHEET MK-01 (BASE BID) (ITEM L-125.5.2)
INSTALL NEW 4" P-403 ASPHALT BASE COURSE AND 5" P-401 ASPHALT SURFACE COURSE WITH P-603 TACK COAT BETWEEN LIFTS WITH 6" P-209 CRUSHED AGGREGATE BASE COURSE WITH 14" P-154 SUBBASE COURSE (TYP.) (BASE BID) (ITEMS P-154-5.1, P-209-5.1, P-401-8.1, P-403-8.1, AND P-603-5.1)
SEE DETAIL SHEET TS-01 FOR TW 'E' WIDENING SECTION
INSTALL NEW 2" P-401 ASPHALT PAVEMENT OVERLAY (TYP.) (BASE BID) (ITEM P-401-8.1)
MATCH EXISTING PAVEMENT. CONSTRUCT PAVEMENT TRANSITION. SEE DETAIL ON SHEET TS-02 (TYP.) (BASE BID) (INCIDENTAL TO ITEMS P-101-5.1 AND P-605-5.1)
TIE INTO EXISTING CENTERLINE (TYP.)
TLOFA
TSA
TOFA
R60' (TYP.)
R60'
R73'
92' (TYP.)
79' (TYP.)
144.5' (TYP.)
85.5'
10'
0 40 80 120 FT
SCALE

LEGEND

- TSA — TAXILANE SAFETY AREA
- TLOFA — TAIXLANE OBJECT FREE AREA
- TOFA — TAIXWAY OBJECT FREE AREA
- 9" FULL STRENGTH PAVEMENT
- 5" FULL STRENGTH PAVEMENT
- NEW PORTLAND CEMENT CONCRETE
- NEW 2" MILL OVERLAY
- NEW VSR PAVEMENT

NOTES:

1. PAVEMENT GEOMETRY DESIGNED TO ACCOMMODATE ADG 3 AIRCAFT.
2. CONCRETE HARDSTAND DESIGNED TO ACCOMODATE AIRBUS A220-300.
3. REFER TO DRAWING GP-01 FOR SURVEY CONTROL POINTS.
4. TURF TIE DOWN LAYOUT BASED OFF OF EXISTING TIEDOWN LAYOUT.

GEOMETRY LAYOUT TABLE		
Point #	Northing	Easting
28	91941.71	1759048.12
29	91949.03	1759040.75
30	92075.48	1759156.12
31	92149.31	1759199.26
32	92166.07	1759189.26
33	92175.91	1759172.41
34	92132.09	1759098.99
35	92015.54	1758973.62
36	92447.96	1759041.66
37	92455.00	1759034.56

GEOMETRY LAYOUT TABLE		
Point #	Northing	Easting
38	92462.11	1759041.59
39	92338.34	1759166.59
40	92327.73	1759162.80
41	92273.66	1759195.08
42	92268.26	1759200.53
43	92225.12	1759274.36
44	92268.95	1759347.79
45	92337.67	1759421.71
46	92332.21	1759420.75
47	92325.18	1759427.85

MARKINGS LAYOUT TABLE		
Point #	Northing	Easting
116	91772.55	1758697.70
117	91872.55	1758685.57
118	91860.29	1758784.62
119	91959.22	1758771.43
120	91945.89	1758869.43
121	92043.76	1758855.18
122	92030.43	1758953.18
123	92128.30	1758938.93
124	92114.97	1759036.93
125	92212.84	1759022.68
126	92199.86	1759121.03
127	92208.74	1759129.83

MARKINGS LAYOUT TABLE		
Point #	Northing	Easting
128	92209.86	1759213.99
129	92191.85	1759232.13
130	92106.34	1759233.19
131	92191.59	1759317.65
132	92174.83	1759301.04
133	92177.38	1759320.17
134	92159.98	1759367.47
135	92292.16	1759130.83
136	92304.58	1759118.34
137	92387.83	1759116.57
138	92272.16	1759289.61

VSR LAYOUT TABLE		
Point #	Northing	Easting
300	92535.74	1758877.82
301	92535.03	1758905.22
302	92522.69	1758917.96
303	92517.21	1758932.58
304	92519.91	1758971.00
305	92540.98	1758969.53

VSR LAYOUT TABLE		
Point #	Northing	Easting
306	92539.63	1758967.03
307	92537.30	1758933.08
308	92540.28	1758928.35
309	92548.52	1758920.03
310	92577.34	1758920.42

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

GEOMETRY AND MARKING PLAN (SHEET 2 OF 2)

DRAWING NUMBER

GE-02

25 OF 72

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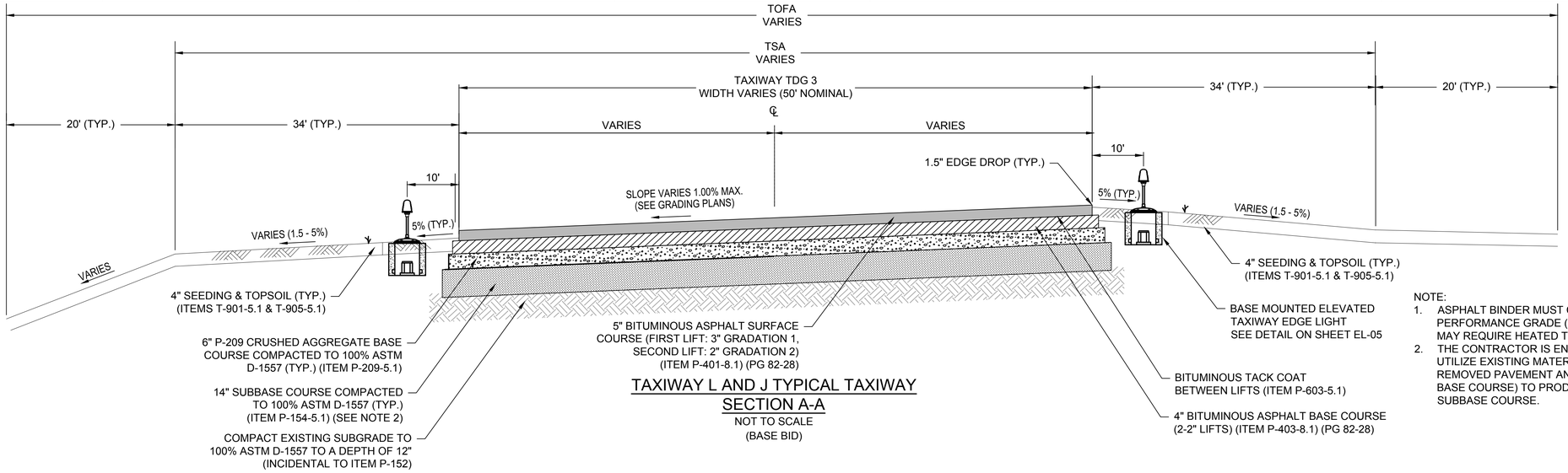
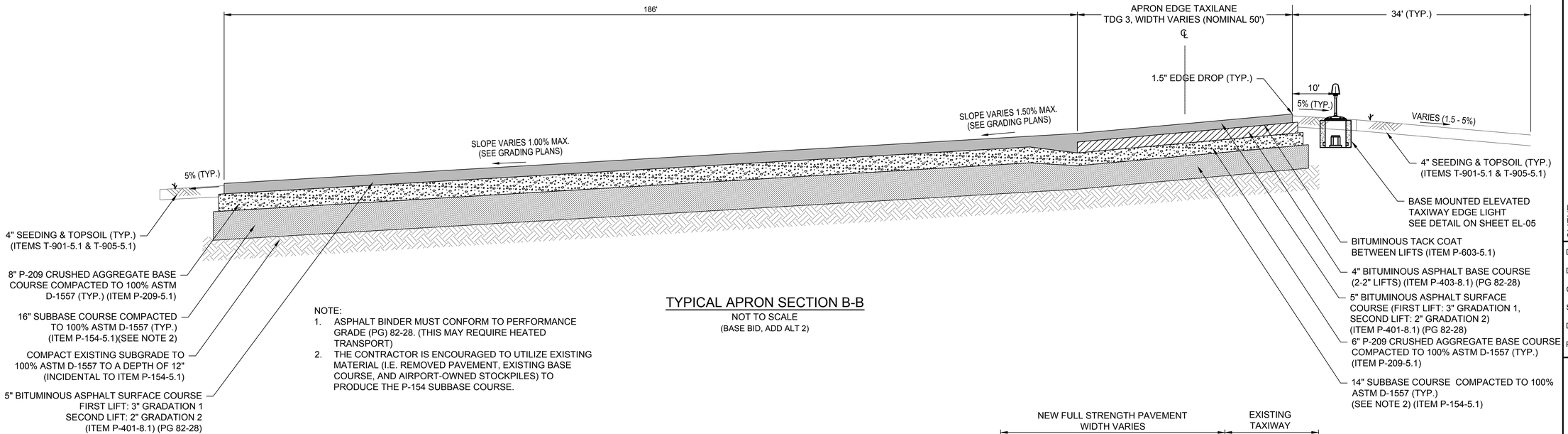


TAXIWAY L AND J TYPICAL TAXIWAY SECTION A-A

NOT TO SCALE
(BASE BID)

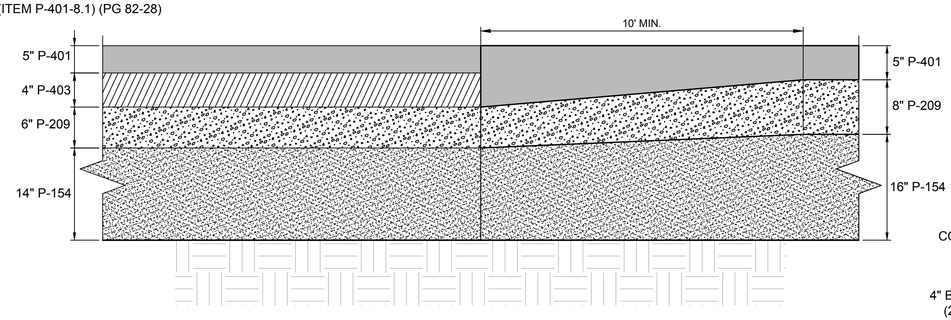
NOTE:
1. ASPHALT BINDER MUST CONFORM TO PERFORMANCE GRADE (PG) 82-28. (THIS MAY REQUIRE HEATED TRANSPORT)
2. THE CONTRACTOR IS ENCOURAGED TO UTILIZE EXISTING MATERIAL (I.E. REMOVED PAVEMENT AND EXISTING BASE COURSE) TO PRODUCE THE P-154 SUBBASE COURSE.


186'
APRON EDGE TAXILANE
TDG 3, WIDTH VARIES (NOMINAL 50')
34' (TYP.)
1.5" EDGE DROP (TYP.)
10'
5% (TYP.)
SLOPE VARIES 1.50% MAX.
(SEE GRADING PLANS)
SLOPE VARIES 1.00% MAX.
(SEE GRADING PLANS)
5% (TYP.)
VARIES (1.5 - 5%)
4" SEEDING & TOPSOIL (TYP.)
(ITEMS T-901-5.1 & T-905-5.1)
BASE MOUNTED ELEVATED
TAXIWAY EDGE LIGHT
SEE DETAIL ON SHEET EL-05
BITUMINOUS TACK COAT
BETWEEN LIFTS (ITEM P-603-5.1)
4" BITUMINOUS ASPHALT BASE COURSE
(2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
5" BITUMINOUS ASPHALT SURFACE
COURSE (FIRST LIFT: 3" GRADATION 1,
SECOND LIFT: 2" GRADATION 2)
(ITEM P-401-8.1) (PG 82-28)
6" P-209 CRUSHED AGGREGATE BASE COURSE
COMPACTED TO 100% ASTM D-1557 (TYP.)
(ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100%
ASTM D-1557 (TYP.)
(SEE NOTE 2) (ITEM P-154-5.1)
4" SEEDING & TOPSOIL (TYP.)
(ITEMS T-901-5.1 & T-905-5.1)
8" P-209 CRUSHED AGGREGATE BASE
COURSE COMPACTED TO 100% ASTM
D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED
TO 100% ASTM D-1557 (TYP.)
(ITEM P-154-5.1)(SEE NOTE 2)
COMPACT EXISTING SUBGRADE TO
100% ASTM D-1557 TO A DEPTH OF 12"
(INCIDENTAL TO ITEM P-154-5.1)
5" BITUMINOUS ASPHALT SURFACE COURSE
FIRST LIFT: 3" GRADATION 1
SECOND LIFT: 2" GRADATION 2
(ITEM P-401-8.1) (PG 82-28)

TYPICAL APRON SECTION B-B

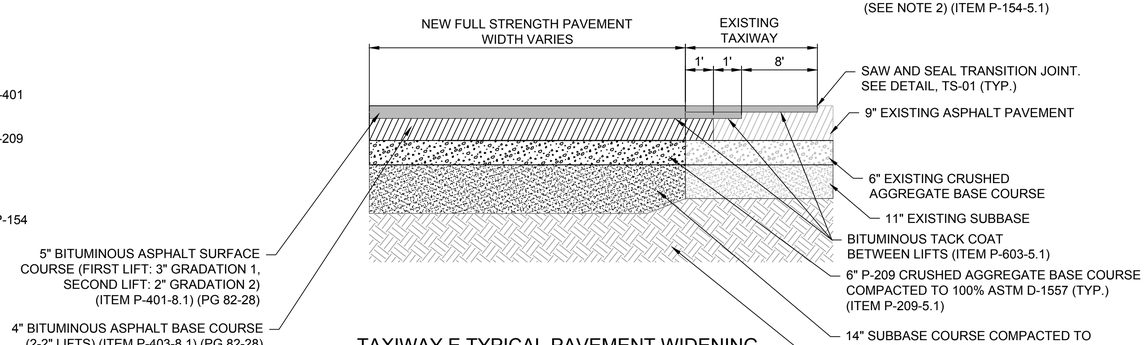
NOT TO SCALE
(BASE BID, ADD ALT 2)

NOTE:
1. ASPHALT BINDER MUST CONFORM TO PERFORMANCE GRADE (PG) 82-28. (THIS MAY REQUIRE HEATED TRANSPORT)
2. THE CONTRACTOR IS ENCOURAGED TO UTILIZE EXISTING MATERIAL (I.E. REMOVED PAVEMENT, EXISTING BASE COURSE, AND AIRPORT-OWNED STOCKPILES) TO PRODUCE THE P-154 SUBBASE COURSE.



5" ASPHALT TO 9" ASPHALT TRANSITION DETAIL

NOT TO SCALE
(BASE BID, ADD ALT 2)



TAXIWAY E TYPICAL PAVEMENT WIDENING SECTION D-D

NOT TO SCALE
(BASE BID)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

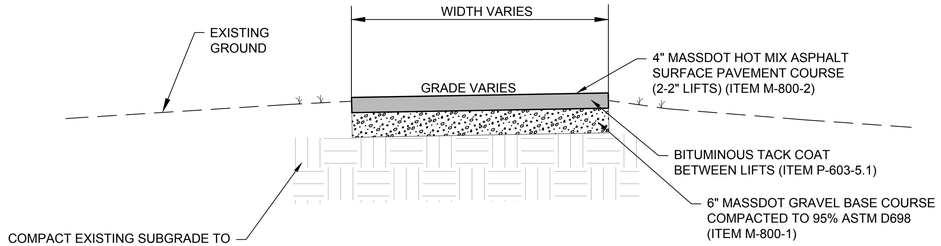
DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 1 OF 3)

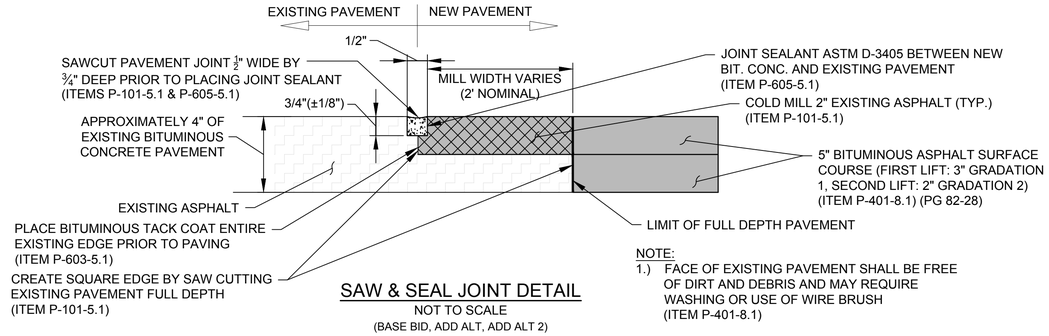
DRAWING NUMBER
TS-01

K:\NANTUCKET\1-18706.07 ACK-SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-DETS.DWG


WIDTH VARIES
EXISTING GROUND
GRADE VARIES
4" MASSDOT HOT MIX ASPHALT SURFACE PAVEMENT COURSE (2-2" LIFTS) (ITEM M-800-2)
BITUMINOUS TACK COAT BETWEEN LIFTS (ITEM P-603-5.1)
6" MASSDOT GRAVEL BASE COURSE COMPACTED TO 95% ASTM D698 (ITEM M-800-1)
COMPACT EXISTING SUBGRADE TO 95% ASTM D-698 TO A DEPTH OF 12" (INCIDENTAL TO ITEM P-154-5.1)

VEHICLE SERVICE ROAD TYPICAL SECTION C-C

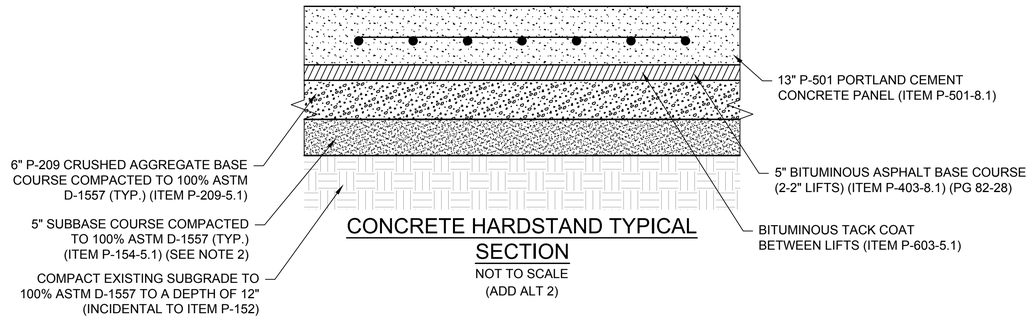
NOT TO SCALE
(BASE BID)


EXISTING PAVEMENT
NEW PAVEMENT
1/2"
SAWCUT PAVEMENT JOINT 1/2" WIDE BY 3/4" DEEP PRIOR TO PLACING JOINT SEALANT (ITEMS P-101-5.1 & P-605-5.1)
MILL WIDTH VARIES (2' NOMINAL)
3/4"(±1/8")
APPROXIMATELY 4" OF EXISTING BITUMINOUS CONCRETE PAVEMENT
JOINT SEALANT ASTM D-3405 BETWEEN NEW BIT. CONC. AND EXISTING PAVEMENT (ITEM P-605-5.1)
COLD MILL 2" EXISTING ASPHALT (TYP.) (ITEM P-101-5.1)
5" BITUMINOUS ASPHALT SURFACE COURSE (FIRST LIFT: 3" GRADATION 1, SECOND LIFT: 2" GRADATION 2) (ITEM P-401-8.1) (PG 82-28)
EXISTING ASPHALT
PLACE BITUMINOUS TACK COAT ENTIRE EXISTING EDGE PRIOR TO PAVING (ITEM P-603-5.1)
LIMIT OF FULL DEPTH PAVEMENT
CREATE SQUARE EDGE BY SAW CUTTING EXISTING PAVEMENT FULL DEPTH (ITEM P-101-5.1)

NOTE:
1.) FACE OF EXISTING PAVEMENT SHALL BE FREE OF DIRT AND DEBRIS AND MAY REQUIRE WASHING OR USE OF WIRE BRUSH (ITEM P-401-8.1)

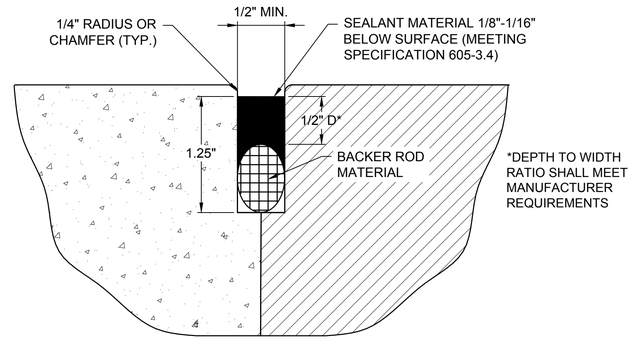
SAW & SEAL JOINT DETAIL

NOT TO SCALE
(BASE BID, ADD ALT, ADD ALT 2)


13" P-501 PORTLAND CEMENT CONCRETE PANEL (ITEM P-501-8.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
5" BITUMINOUS ASPHALT BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
5" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1) (SEE NOTE 2)
BITUMINOUS TACK COAT BETWEEN LIFTS (ITEM P-603-5.1)
COMPACT EXISTING SUBGRADE TO 100% ASTM D-1557 TO A DEPTH OF 12" (INCIDENTAL TO ITEM P-152)

CONCRETE HARDSTAND TYPICAL SECTION

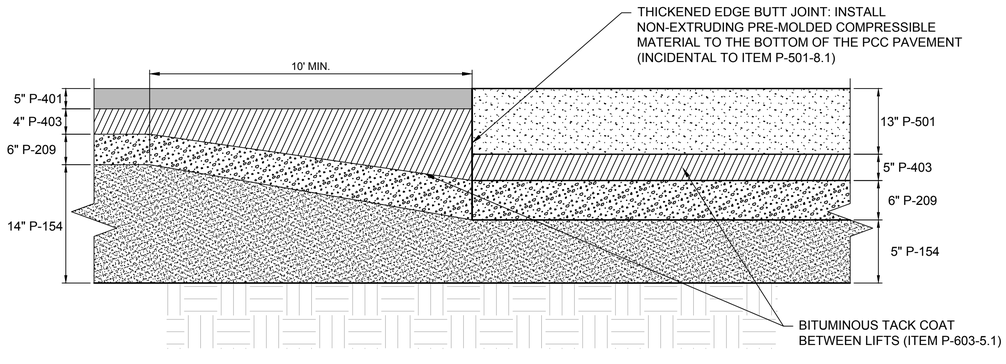
NOT TO SCALE
(ADD ALT 2)


1/4" RADIUS OR CHAMFER (TYP.)
1/2" MIN.
SEALANT MATERIAL 1/8"-1/16" BELOW SURFACE (MEETING SPECIFICATION 605-3.4)
1/2" D*
1.25"
BACKER ROD MATERIAL
*DEPTH TO WIDTH RATIO SHALL MEET MANUFACTURER REQUIREMENTS

NOTES:
1. SEALANT RESERVOIR SIZED TO PROVIDE PROPER SHAPE FACTOR, W/D, FIELD POURED AND PREFORMED SEALANTS REQUIRE DIFFERENT SHAPE FACTORS FOR OPTIMUM PERFORMANCE.
2. BACKER ROD MATERIAL MUST BE COMPATIBLE WITH THE TYPE OF LIQUID SEALANT USED AND SIZED TO PROVIDE THE DESIRED SHAPE FACTOR.

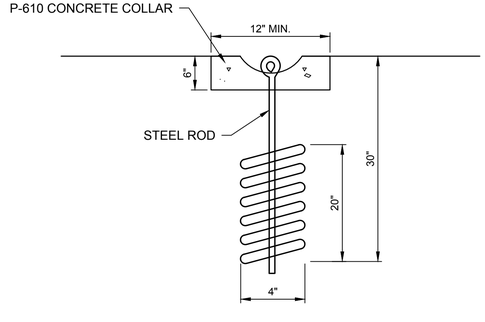
PCC TO AC JOINT DETAIL

NOT TO SCALE
(ADD ALT 2) (INCIDENTAL TO ITEM P-501-8.1)


THICKENED EDGE BUTT JOINT: INSTALL NON-EXTRUDING PRE-MOLDED COMPRESSIBLE MATERIAL TO THE BOTTOM OF THE PCC PAVEMENT (INCIDENTAL TO ITEM P-501-8.1)
10' MIN.
5" P-401
4" P-403
6" P-209
14" P-154
13" P-501
5" P-403
6" P-209
5" P-154
BITUMINOUS TACK COAT BETWEEN LIFTS (ITEM P-603-5.1)

PCC APRON TO ASPHALT APRON TRANSITION DETAIL

NOT TO SCALE
(ADD ALT 2)



IN TURF AIRCRAFT TIE-DOWN DETAIL

NOT TO SCALE
(BASE BID)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

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CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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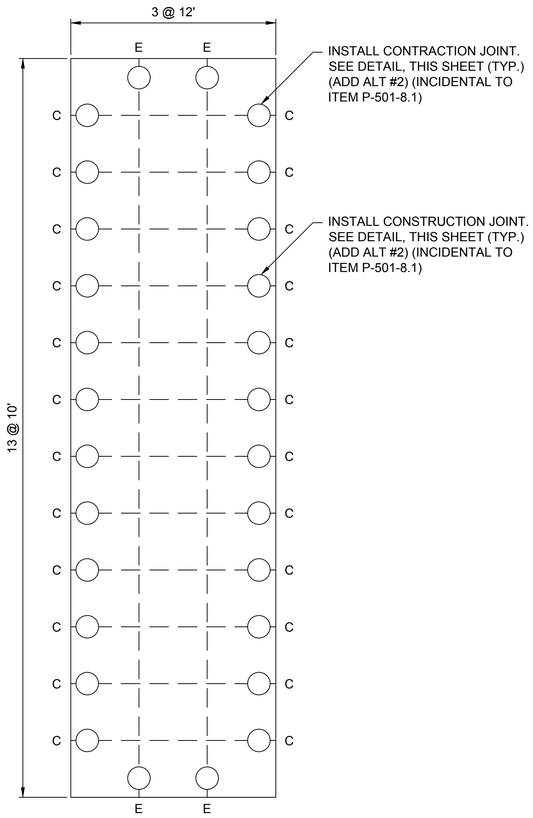
DRAWING TITLE
TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 2 OF 3)

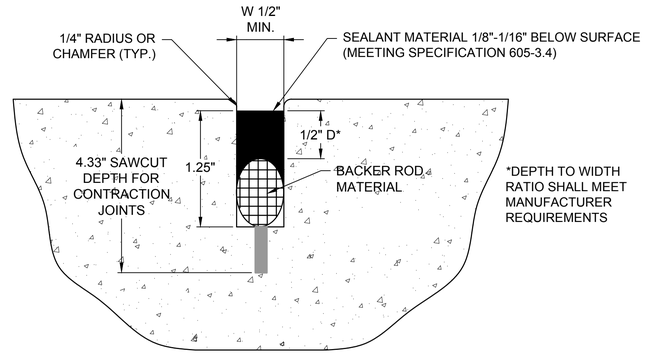
DRAWING NUMBER
TS-02
27 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\SRA\WORKING\SHEET FILES\18706.07 DETS.DWG


3 @ 12'
E
E
C
13 @ 10'
INSTALL CONTRACTION JOINT. SEE DETAIL, THIS SHEET (TYP.) (ADD ALT #2) (INCIDENTAL TO ITEM P-501-8.1)
INSTALL CONSTRUCTION JOINT. SEE DETAIL, THIS SHEET (TYP.) (ADD ALT #2) (INCIDENTAL TO ITEM P-501-8.1)

PCC PAVEMENT JOINT LAYOUT

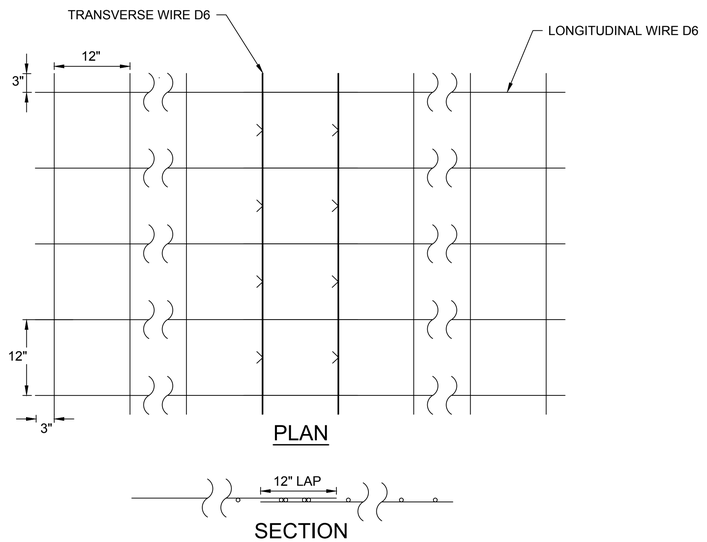
NOT TO SCALE
(ADD ALT 2) (INCIDENTAL TO ITEM P-501-8.1)


W 1/2" MIN.
1/4" RADIUS OR CHAMFER (TYP.)
SEALANT MATERIAL 1/8"-1/16" BELOW SURFACE (MEETING SPECIFICATION 605-3.4)
1/2" D*
4.33" SAWCUT DEPTH FOR CONTRACTION JOINTS
1.25"
BACKER ROD MATERIAL
*DEPTH TO WIDTH RATIO SHALL MEET MANUFACTURER REQUIREMENTS

NOTES:
1. SEALANT RESERVOIR SIZED TO PROVIDE PROPER SHAPE FACTOR, W/D, FIELD POURED AND PREFORMED SEALANTS REQUIRE DIFFERENT SHAPE FACTORS FOR OPTIMUM PERFORMANCE.
2. BACKER ROD MATERIAL MUST BE COMPATIBLE WITH THE TYPE OF LIQUID SEALANT USED AND SIZED TO PROVIDE THE DESIRED SHAPE FACTOR.
3. SAWCUT PCC PAVEMENTS AT A DEPTH OF 3.75" FOR CONTRACTION JOINTS.

CONSTRUCTION/CONTRACTION SEAL DETAIL

NOT TO SCALE
(ADD ALT 2) (INCIDENTAL TO ITEM P-501-8.1)



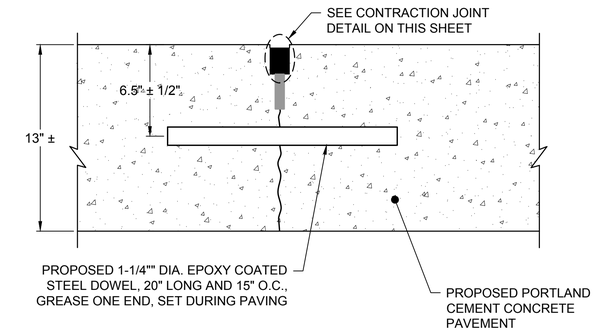
PLAN

SECTION

NOTE: ALL IRREGULAR SHAPED SLABS THOSE WITH UTILITY BLOCKOUTS, AND HEAT RESISTANT CONCRETE SLABS SHALL BE REINFORCED

WELDED WIRE FABRIC DETAIL

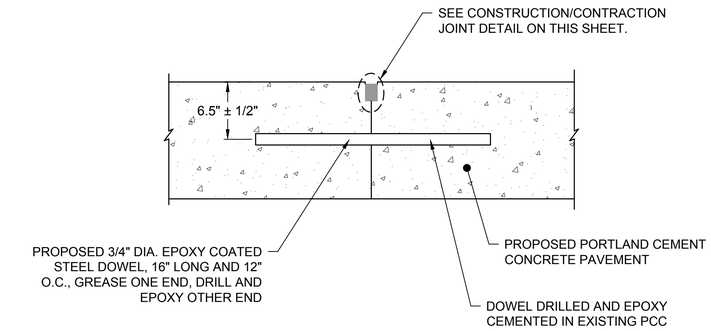
NOT TO SCALE


SEE CONTRACTION JOINT DETAIL ON THIS SHEET
6.5" ± 1/2"
13" ±
PROPOSED 1-1/4"" DIA. EPOXY COATED STEEL DOWEL, 20" LONG AND 15" O.C., GREASE ONE END, SET DURING PAVING
PROPOSED PORTLAND CEMENT CONCRETE PAVEMENT

NOTES:
1. MAY BE SUBSTITUTED FOR TYPE E CONSTRUCTION JOINT DEPENDING ON PAVING DIRECTION.

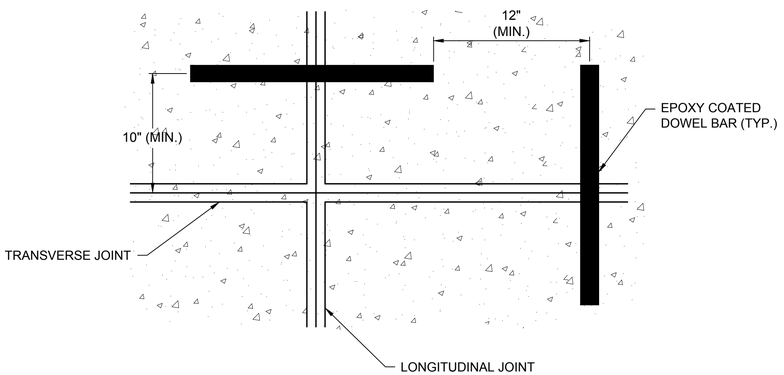
CONTRACTION JOINT WITH DOWEL BAR (TYPE C)

NOT TO SCALE
(ADD ALT 2) (INCIDENTAL TO ITEM P-501-8.1)


SEE CONSTRUCTION/CONTRACTION JOINT DETAIL ON THIS SHEET.
6.5" ± 1/2"
PROPOSED 3/4" DIA. EPOXY COATED STEEL DOWEL, 16" LONG AND 12" O.C., GREASE ONE END, DRILL AND EPOXY OTHER END
PROPOSED PORTLAND CEMENT CONCRETE PAVEMENT
DOWEL DRILLED AND EPOXY CEMENTED IN EXISTING PCC

CONSTRUCTION JOINT WITH DOWEL BAR (TYPE E)

NOT TO SCALE
(ADD ALT 2) (INCIDENTAL TO ITEM P-501-8.1)



DOWEL BAR POSITION DETAIL AT JOINT EDGE

NOT TO SCALE
(ADD ALT 2) (INCIDENTAL TO ITEM P-501-8.1)

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Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
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CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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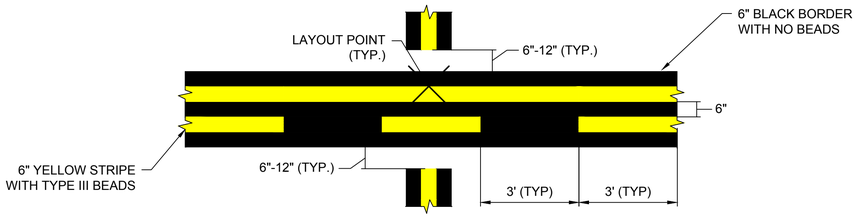
DRAWING TITLE
TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 3 OF 3)

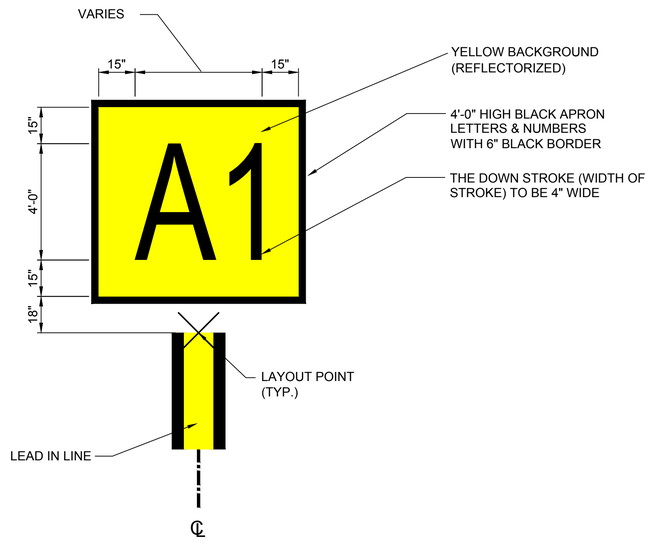
DRAWING NUMBER
TS-03
28 OF 72

K:\NANTUCKET\T1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-DETS.DWG



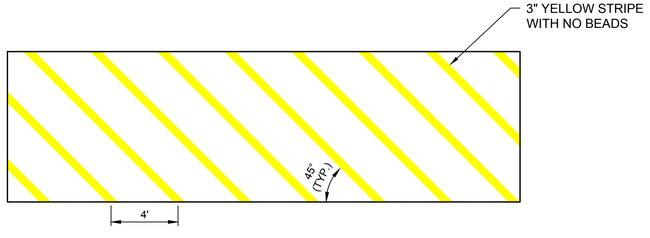
NON-MOVEMENT AREA MARKING DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)
(BASE BID)



SURFACE PAINTED GATE IDENTIFICATION SIGN DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)
(BASE BID, ADD ALT 2)



ARFF MARKING RESTORATION DETAIL

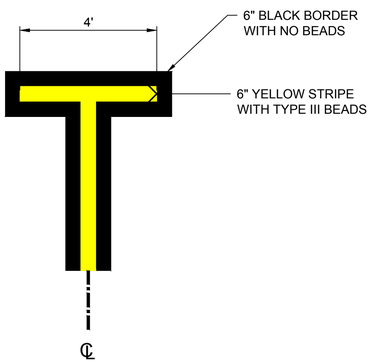
NOT TO SCALE
(INCIDENTAL TO ITEM L-110-5.3B)
(BASE BID)

TAXIWAY/TAXILANE CENTERLINE MARKING DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)
(BASE BID, ADD ALT 2)

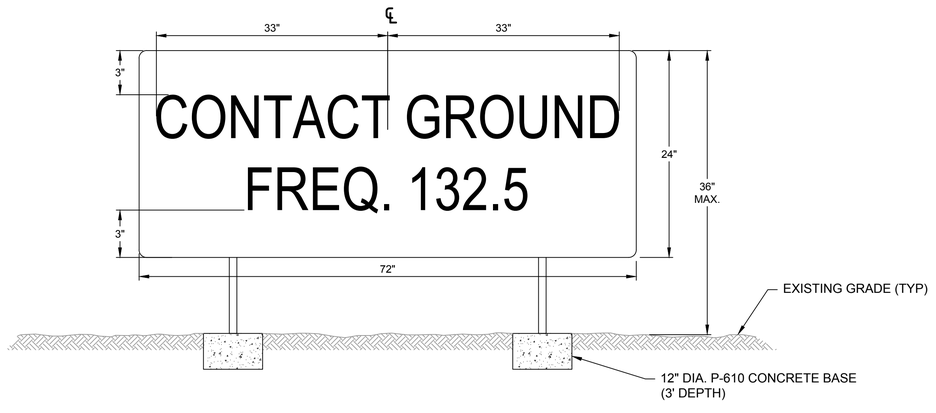
GENERAL MARKING NOTES:

1. ALL TAXIWAY/TAXILANE MARKINGS SHALL HAVE 6" BLACK BORDER.
2. ALL BLACK MARKINGS SHALL RECEIVE NO BEADS.
3. ALL YELLOW MARKINGS SHALL HAVE TYPE III BEADS .
4. PAINT SHALL BE PAID FOR UNDER ITEM P-620-5.2B.
5. BEADS SHALL BE PAID UNDER ITEM P-620-5.3C.
6. ANY PAINT OTHER THAN BLACK SHALL BE APPLIED IN TWO COATS, FIRST COAT WILL NOT RECEIVE BEADS.



SURFACE PAINTED HOLD MARKINGS DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)
(BASE BID, ADD ALT 2)



UNLIT AIRFIELD GUIDANCE SIGN DETAIL

NOT TO SCALE
(ITEM L-125-5.2)

MUTCD HORIZONTAL RECTANGLE
72" X 24" BLANK STANDARD

COLORS:
LEGEND - BLACK
BACKGROUND - YELLOW (RETROREFLECTIVE)

TEXT:
FONT - MUTCD "SERIES B 2000"

REF: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
(MUTCD) STANDARD HIGHWAY SIGNS LATEST EDITION

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

MARKING DETAILS

DRAWING NUMBER

MK-01

29 OF 72

K:\NANTUCKET\1-18706.07 ACK-SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-DETS.DWG

CONSTRUCT SURPLUS MATERIAL STOCKPILE (INCIDENTAL TO ITEM P-152-4.1A, P-152-4.1D)

LIMITS OF DISTURBANCE (TYP.)

EXISTING CONTOUR (TYP.)

CONSTRUCT STORMWATER INFILTRATION SYSTEM (1,344 CHAMBERS) WITH ISOLATOR ROWS
TOP OF STONE = 16.00
TOP OF CHAMBER = 15.00
BOTTOM OF CHAMBER = 10.00
BOTTOM OF STONE = 9.25

INSTALL 36" HDPE MANIFOLD
INV=10.00
S=0.0%
(BASE BID) (ITEM D-701-5.4)

INSTALL 24" HDPE MANIFOLD
INV=11.92
S=0.0%
(BASE BID) (ITEM D-701-5.3)

INSTALL NEW PIPE. REFER TO PIPE TABLE ON SHEET GR-10 FOR DETAILS (TYP.)

INSTALL NEW CATCH BASIN. REFER TO STRUCTURE TABLE ON SHEET GR-10 FOR DETAILS (TYP.)

PROPOSED CONTOUR (TYP.)

INSTALL NEW PIPE. REFER TO PIPE TABLE ON SHEET GR-10 FOR DETAILS (TYP.)

INSTALL NEW MANHOLE. REFER TO STRUCTURE TABLE ON SHEET GR-10 FOR DETAILS (TYP.)

MATCH EXISTING GRADE (TYP.)

MATCHLINE (SEE SHEET GR-02)

TAXIWAY E

TAXIWAY L

DMH-1, DMH-2A, DMH-2B, DMH-3, DMH-4, DMH-10A, DMH-10B, DMH-11, DMH-12, DMH-13
CB-1, CB-2, CB-3, CB-9, CB-10, CB-11
P21, P22, P23, P24, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P8, P9, P10, P11
B11, B12, B13, B15, B16, B17, B19, B20, B21, B22, B23
CBR4, CBR5, CBR6, CBR7
CB-9 RIM=16.45 COULD NOT OPEN

TSA TAXILANE SAFETY AREA
TOFA TAXIWAY OBJECT FREE AREA
TLOFA TAXILANE OBJECT FREE AREA

LEGEND

- 45.0 EXISTING MAJOR CONTOUR
- 45.5 EXISTING MINOR CONTOUR
- 45.0 PROPOSED MAJOR CONTOUR
- 45.5 PROPOSED MINOR CONTOUR
- LOD LIMITS OF DISTURBANCE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN (D-751-5.2)
- PROPOSED DRAINAGE MANHOLE (D-751-5.1)
- PROPOSED DRAINAGE PIPE (ITEMS D-701-5.1 TO D-701-5.5)

EARTHWORK NOTES:

1. IT IS ASSUMED ALL THE SUITABLE MATERIAL WILL BE DISPOSED OF IN THE PROPOSED SURPLUS MATERIAL STOCKPILE AS DEPICTED ON THE PLANS. REFER TO SHEETS SM-01 THROUGH SM-03 FOR ADDITIONAL DETAILS. (INCIDENTAL TO ITEMS P-152-4.1A, P-152-4.2).

2. IT IS THE PROJECTS INTENT TO RECLAIM THE EXISTING PAVEMENTS, BASE MATERIAL, MATERIAL FROM AIRPORT-OWNED STOCKPILES, AND PORTIONS OF THE SUBBASE MATERIAL TO PRODUCE, ON SITE P-154 MATERIAL THAT MEETS THE P-154 SPECIFICATION. THE CONTRACTOR SHALL DETERMINE AND PROVIDE SUPPLEMENTAL AGGREGATES/MATERIALS NEEDED TO MEET THE P-154 SPECIFICATION AT NO ADDITIONAL COST TO THE OWNER. MEASUREMENT FOR PAYMENT WILL INCLUDE: ITEM P-101-5.1 PAVEMENT REMOVAL, ITEM P-152-4.1A UNCLASSIFIED EXCAVATION AND P-154-5.1 SUBBASE COURSE. BLENDING AND MIXING TO PRODUCE A UNIFORM BLEND OF P-154 SUBBASE MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS AS WELL AS ANY SUPPLEMENTAL AGGREGATE REQUIRED.

3. THE P-209 CRUSHED AGGREGATE BASE COURSE MATERIAL SHALL BE VIRGIN MATERIAL QUARRIED PRODUCED, BLENDED AND TESTED AT FACILITIES DESIGNED AND BUILT FOR THIS FUNCTION. THE MATERIAL SHALL MEET P-209 SPECIFICATION REQUIREMENTS.

4. THE QUANTITY OF SEPARATION GEOTEXTILE FABRIC (ITEM P-209-5.2) IS INTENDED FOR USE IF SOFT SPOTS OR UNSUITABLE SUBGRADE PREPARATION IN ACCORDANCE WITH SPECIFICATION SECTION P-152. THIS IS A CONTINGENCY ITEM, AND THE ACTUAL QUANTITY REQUIRED IS UNKNOWN. IF NO SEPARATION GEOTEXTILE FABRIC IS REQUIRED, THE FAA PROHIBITS PAYMENT FOR QUANTITY OF MATERIAL PURCHASED AND NOT USED. THE CONTRACTOR IS ADVISED TO TAKE THIS INTO ACCOUNT IN PREPARATION OF THEIR BID.

NOTES:

1. SEE SHEET GR-10 FOR DRAINAGE PIPE AND STRUCTURE SCHEDULE.
2. SEE SHEETS BL-01 TO BL-05 FOR BORING LOGS

0 40 80 120 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
CDW CONSULTANTS

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

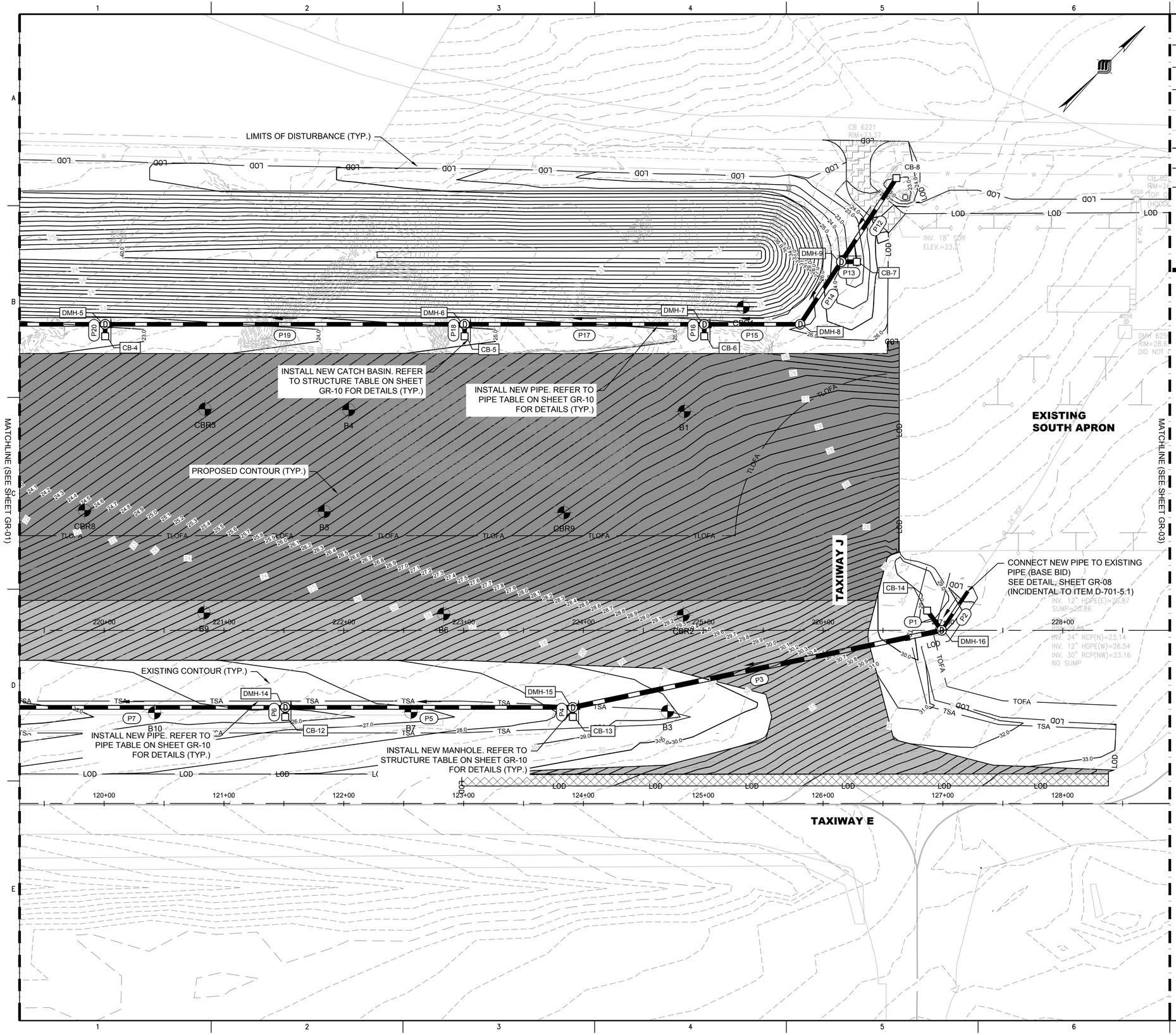
GRADING AND DRAINAGE PLAN (SHEET 1 OF 2)

DRAWING NUMBER

GR-01

30 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-GRAD & DRAIN.DWG



LEGEND

TSA	TAXILANE SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
TLOFA	TAXILANE OBJECT FREE AREA
45.0	EXISTING MAJOR CONTOUR
45.5	EXISTING MINOR CONTOUR
45.0	PROPOSED MAJOR CONTOUR
45.5	PROPOSED MINOR CONTOUR
LOD	LIMITS OF DISTURBANCE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN (D-751-5.2)
	PROPOSED DRAINAGE MANHOLE (D-751-5.1)
	PROPOSED DRAINAGE PIPE (ITEMS D-701-5.1 TO D-701-5.5)

EARTHWORK NOTES:

1. IT IS ASSUMED ALL THE SUITABLE MATERIAL WILL BE DISPOSED OF IN THE PROPOSED SURPLUS MATERIAL STOCKPILE AS DEPICTED ON THE PLANS. REFER TO SHEETS SM-01 THROUGH SM-03 FOR ADDITIONAL DETAILS. (INCIDENTAL TO ITEMS P-152-4.1A, P-152-4.2).

2. IT IS THE PROJECTS INTENT TO RECLAIM THE EXISTING PAVEMENTS, BASE MATERIAL, MATERIAL FROM AIRPORT-OWNED STOCKPILES, AND PORTIONS OF THE SUBBASE MATERIAL TO PRODUCE, ON SITE P-154 MATERIAL THAT MEETS THE P-154 SPECIFICATION. THE CONTRACTOR SHALL DETERMINE AND PROVIDE SUPPLEMENTAL AGGREGATES/MATERIALS NEEDED TO MEET THE P-154 SPECIFICATION AT NO ADDITIONAL COST TO THE OWNER. MEASUREMENT FOR PAYMENT WILL INCLUDE: ITEM P-101-5.1 PAVEMENT REMOVAL, ITEM P-152-4.1A UNCLASSIFIED EXCAVATION AND P-154-5.1 SUBBASE COURSE. BLENDING AND MIXING TO PRODUCE A UNIFORM BLEND OF P-154 SUBBASE MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS AS WELL AS ANY SUPPLEMENTAL AGGREGATE REQUIRED.

3. THE P-209 CRUSHED AGGREGATE BASE COURSE MATERIAL SHALL BE VIRGIN MATERIAL QUARRIED PRODUCED, BLENDED AND TESTED AT FACILITIES DESIGNED AND BUILT FOR THIS FUNCTION. THE MATERIAL SHALL MEET P-209 SPECIFICATION REQUIREMENTS.

4. THE QUANTITY OF SEPARATION GEOTEXTILE FABRIC (ITEM P-209-5.2) IS INTENDED FOR USE IF SOFT SPOTS OR UNSUITABLE SUBGRADE PREPARATION IN ACCORDANCE WITH SPECIFICATION SECTION P-152. THIS IS A CONTINGENCY ITEM, AND THE ACTUAL QUANTITY REQUIRED IS UNKNOWN. IF NO SEPARATION GEOTEXTILE FABRIC IS REQUIRED, THE FAA PROHIBITS PAYMENT FOR QUANTITY OF MATERIAL PURCHASED AND NOT USED. THE CONTRACTOR IS ADVISED TO TAKE THIS INTO ACCOUNT IN PREPARATION OF THEIR BID.

NOTES:

1. SEE SHEET GR-10 FOR DRAINAGE PIPE AND STRUCTURE SCHEDULE.
2. SEE SHEETS BL-01 TO BL-05 FOR BORING LOGS

0 40 80 120 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
CDW CONSULTANTS

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

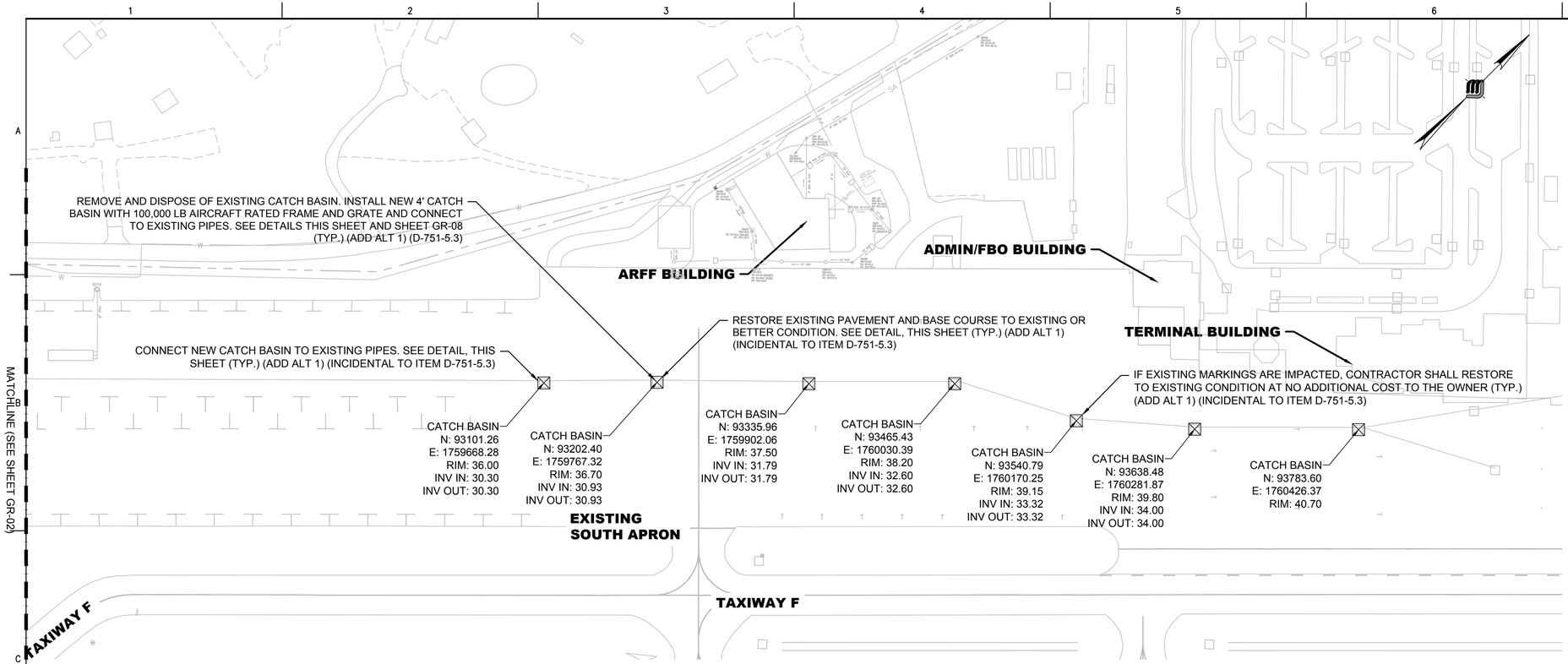
GRADING AND DRAINAGE PLAN (SHEET 2 OF 2)

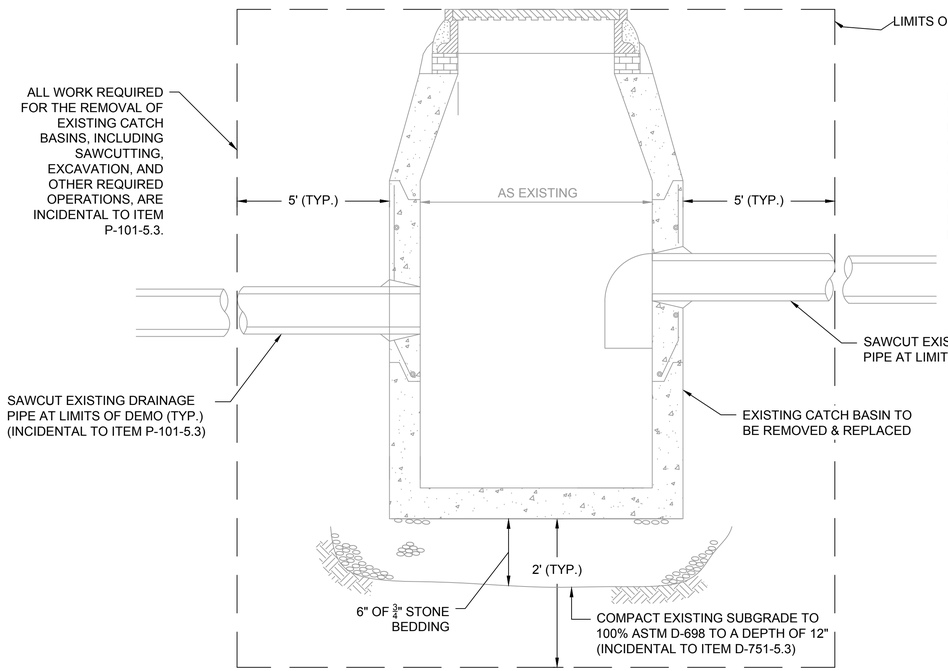
DRAWING NUMBER

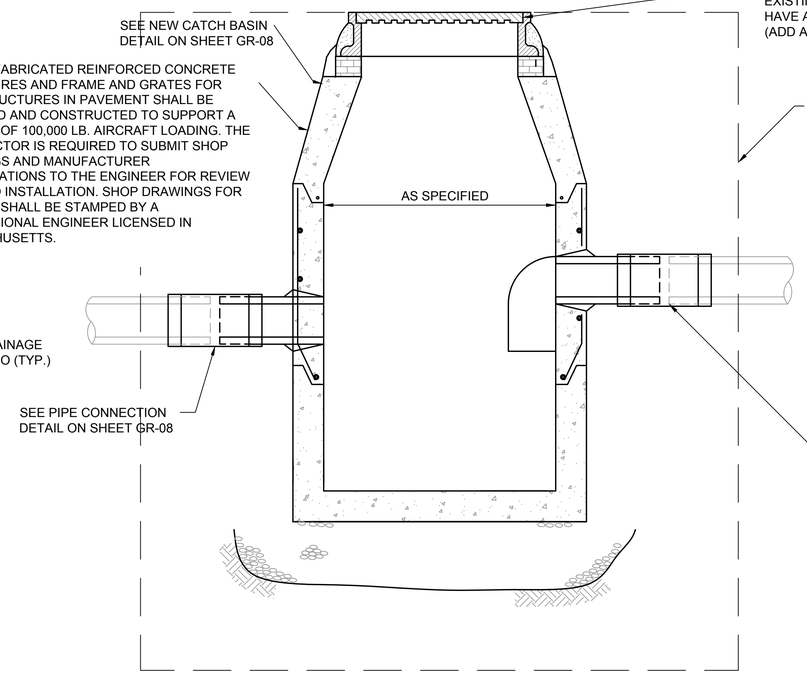
GR-02

31 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-GRAD & DRAIN.DWG


REMOVE AND DISPOSE OF EXISTING CATCH BASIN. INSTALL NEW 4' CATCH BASIN WITH 100,000 LB AIRCRAFT RATED FRAME AND GRATE AND CONNECT TO EXISTING PIPES. SEE DETAILS THIS SHEET AND SHEET GR-08 (TYP.) (ADD ALT 1) (D-751-5.3)
ARFF BUILDING
ADMIN/FBO BUILDING
TERMINAL BUILDING
CONNECT NEW CATCH BASIN TO EXISTING PIPES. SEE DETAIL, THIS SHEET (TYP.) (ADD ALT 1) (INCIDENTAL TO ITEM D-751-5.3)
RESTORE EXISTING PAVEMENT AND BASE COURSE TO EXISTING OR BETTER CONDITION. SEE DETAIL, THIS SHEET (TYP.) (ADD ALT 1) (INCIDENTAL TO ITEM D-751-5.3)
IF EXISTING MARKINGS ARE IMPACTED, CONTRACTOR SHALL RESTORE TO EXISTING CONDITION AT NO ADDITIONAL COST TO THE OWNER (TYP.) (ADD ALT 1) (INCIDENTAL TO ITEM D-751-5.3)
CATCH BASIN N: 93101.26 E: 1759668.28 RIM: 36.00 INV IN: 30.30 INV OUT: 30.30
CATCH BASIN N: 93202.40 E: 1759767.32 RIM: 36.70 INV IN: 30.93 INV OUT: 30.93
CATCH BASIN N: 93335.96 E: 1759902.06 RIM: 37.50 INV IN: 31.79 INV OUT: 31.79
CATCH BASIN N: 93465.43 E: 1760030.39 RIM: 38.20 INV IN: 32.60 INV OUT: 32.60
CATCH BASIN N: 93540.79 E: 1760170.25 RIM: 39.15 INV IN: 33.32 INV OUT: 33.32
CATCH BASIN N: 93638.48 E: 1760281.87 RIM: 39.80 INV IN: 34.00 INV OUT: 34.00
CATCH BASIN N: 93783.60 E: 1760426.37 RIM: 40.70
EXISTING SOUTH APRON
TAXIWAY F
TAXIWAY F
MATCHLINE (SEE SHEET GR-02)


LIMITS OF DEMO
ALL WORK REQUIRED FOR THE REMOVAL OF EXISTING CATCH BASINS, INCLUDING SAWCUTTING, EXCAVATION, AND OTHER REQUIRED OPERATIONS, ARE INCIDENTAL TO ITEM P-101-5.3.
5' (TYP.)
AS EXISTING
5' (TYP.)
SAWCUT EXISTING DRAINAGE PIPE AT LIMITS OF DEMO (TYP.)
SAWCUT EXISTING DRAINAGE PIPE AT LIMITS OF DEMO (TYP.) (INCIDENTAL TO ITEM P-101-5.3)
EXISTING CATCH BASIN TO BE REMOVED & REPLACED
2' (TYP.)
6" OF 3/4" STONE BEDDING
COMPACT EXISTING SUBGRADE TO 100% ASTM D-698 TO A DEPTH OF 12" (INCIDENTAL TO ITEM D-751-5.3)


SEE NEW CATCH BASIN DETAIL ON SHEET GR-08
ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES AND FRAME AND GRATES FOR NEW STRUCTURES IN PAVEMENT SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT A MINIMUM OF 100,000 LB. AIRCRAFT LOADING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS.
AS SPECIFIED
SEE PIPE CONNECTION DETAIL ON SHEET GR-08
THE FRAME AND GRATE FOR CATCH BASINS IN EXISTING PAVEMENT SHALL BE AIRPORT RATED AND HAVE A MINIMUM OPENING AREA OF 24" +/- 1" SF (ADD ALT 1) (INCIDENTAL TO ITEM P-751-5.3)
CONTRACTOR SHALL BACKFILL DEMOLITION AREA TO EXISTING OR BETTER CONDITION. ALL SUBGRADE AND BACKFILL MATERIAL SHALL BE COMPACTED TO 100% OF ASTM D1557.
CONTRACTOR SHALL RESTORE EXISTING PAVEMENT SECTION TO EXISTING OR BETTER CONDITION, MAINTAINING A MINIMUM PAVEMENT SECTION OF 4" OF P-401 ASPHALT PAVEMENT AND 6" OF P-209 CRUSHED AGGREGATE BASE COURSE. IF LARGER PAVEMENT THICKNESSES ARE DISCOVERED, THE CONTRACTOR SHALL RESTORE THOSE THICKNESSES AT NO ADDITIONAL COST TO THE OWNER.
(ADD ALT 1) (INCIDENTAL TO ITEM D-751-5.3)
CONNECT NEW CATCH BASIN AND PIPES TO EXISTING 18" TO 24" RCP (TYP.) (ADD ALT 1) (INCIDENTAL TO ITEM D-751-5.3)

CATCH BASIN REMOVAL & REPLACEMENT

NOT TO SCALE

(ADD ALT 1) (INCIDENTAL TO ITEMS P-101-5.3, P-751-5.3)

LEGEND

REMOVE AND REPLACE EXISTING CATCH BASIN (ITEM D-751-5.3)

NOTES:

1. SEE SHEETS CS-07 AND CS-11 FOR PHASING, NOTES AND DETAILS.
2. CONTRACTOR TO VERIFY RIMS AND INVERTS OF EXISTING CATCH BASINS AND PIPES PRIOR TO REMOVAL OF STRUCTURES.
3. ALL WORK ASSOCIATED WITH REMOVAL AND REPLACEMENT OF EXISTING CATCH BASINS IS INCIDENTAL TO ITEMS P-101-5.3 AND D-751-5.3.

0 80 160 240 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=80'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

EXISTING SOUTH APRON DRAINAGE PLAN (ADD ALT #1)

DRAWING NUMBER

GR-03

32 OF 72

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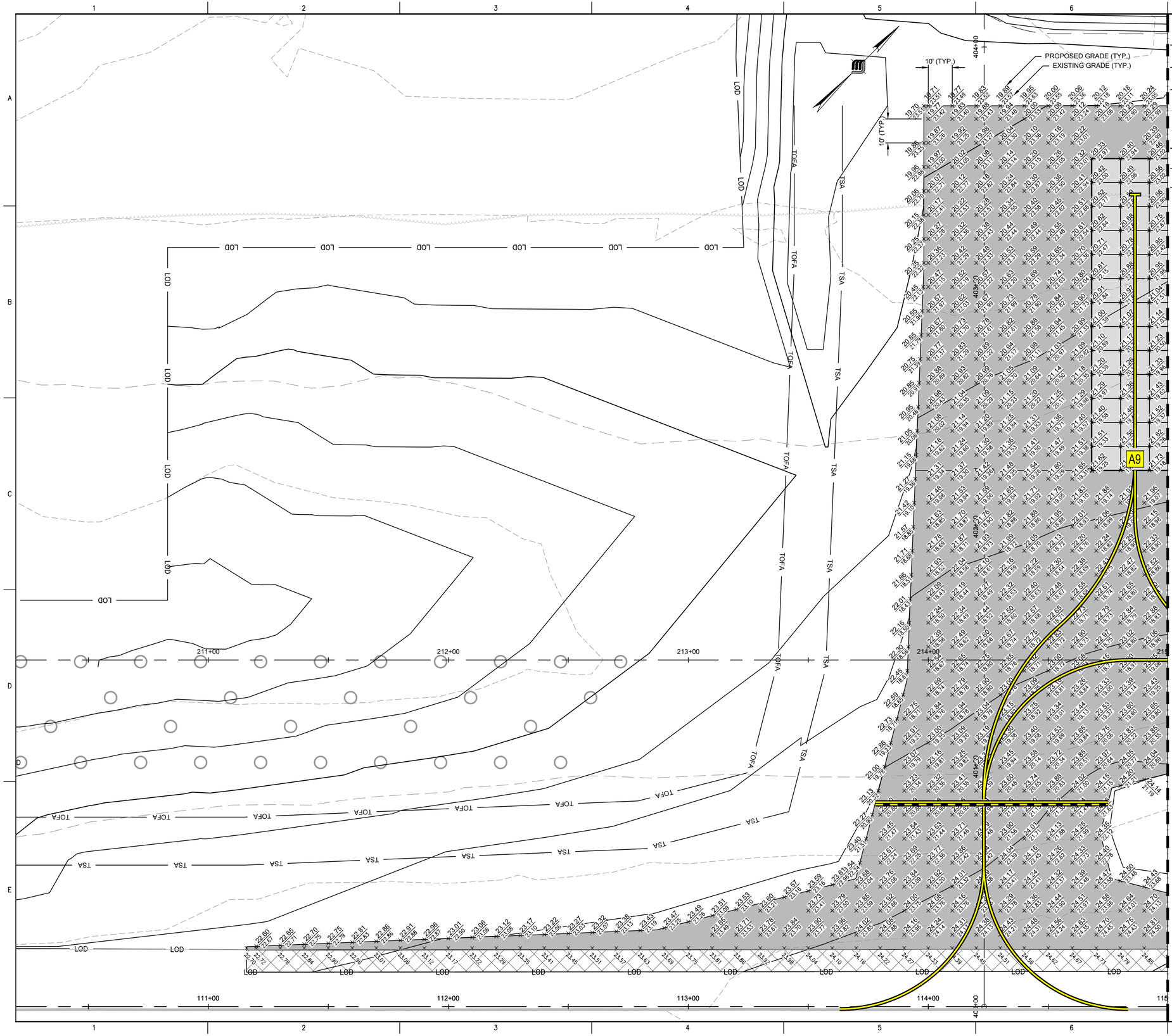

LEGEND

TSA	TAXILANE SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
TLOFA	TAXILANE OBJECT FREE AREA
45.0	EXISTING MAJOR CONTOUR
45.5	EXISTING MINOR CONTOUR
45.0	PROPOSED MAJOR CONTOUR
45.5	PROPOSED MINOR CONTOUR
LOD	LIMITS OF DISTURBANCE

0 20 40 60 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=20'
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

SPOT GRADING PLAN (SHEET 1 OF 4)

DRAWING NUMBER

GR-04

33 OF 72

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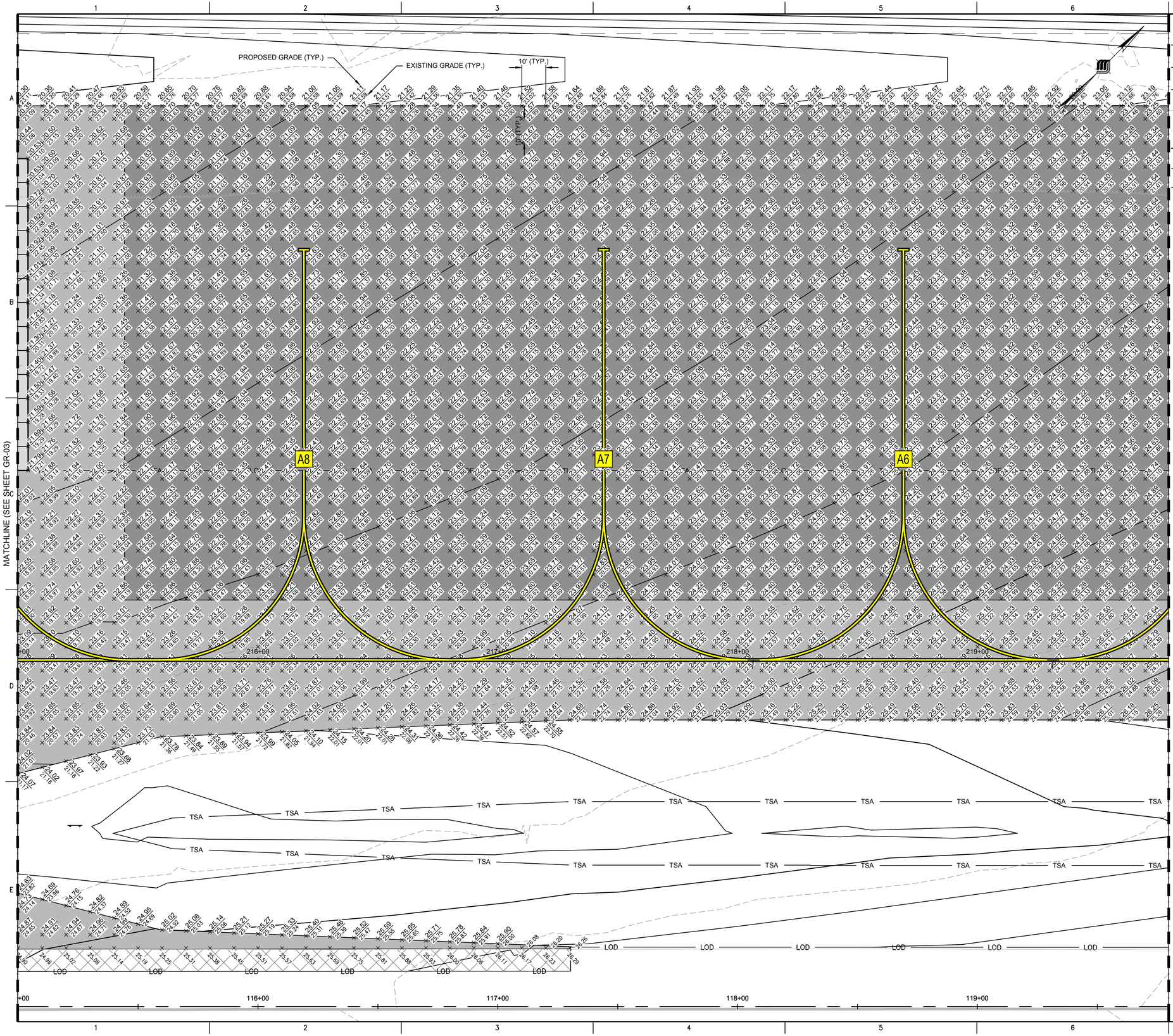

LEGEND

TSA	TAXILANE SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
TLOFA	TAXILANE OBJECT FREE AREA
45.0	EXISTING MAJOR CONTOUR
45.5	EXISTING MINOR CONTOUR
45.0	PROPOSED MAJOR CONTOUR
45.5	PROPOSED MINOR CONTOUR
LOD	LIMITS OF DISTURBANCE

0 20 40 60 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=20'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

SPOT GRADING PLAN (SHEET 2 OF 4)

DRAWING NUMBER

GR-05

34 OF 72

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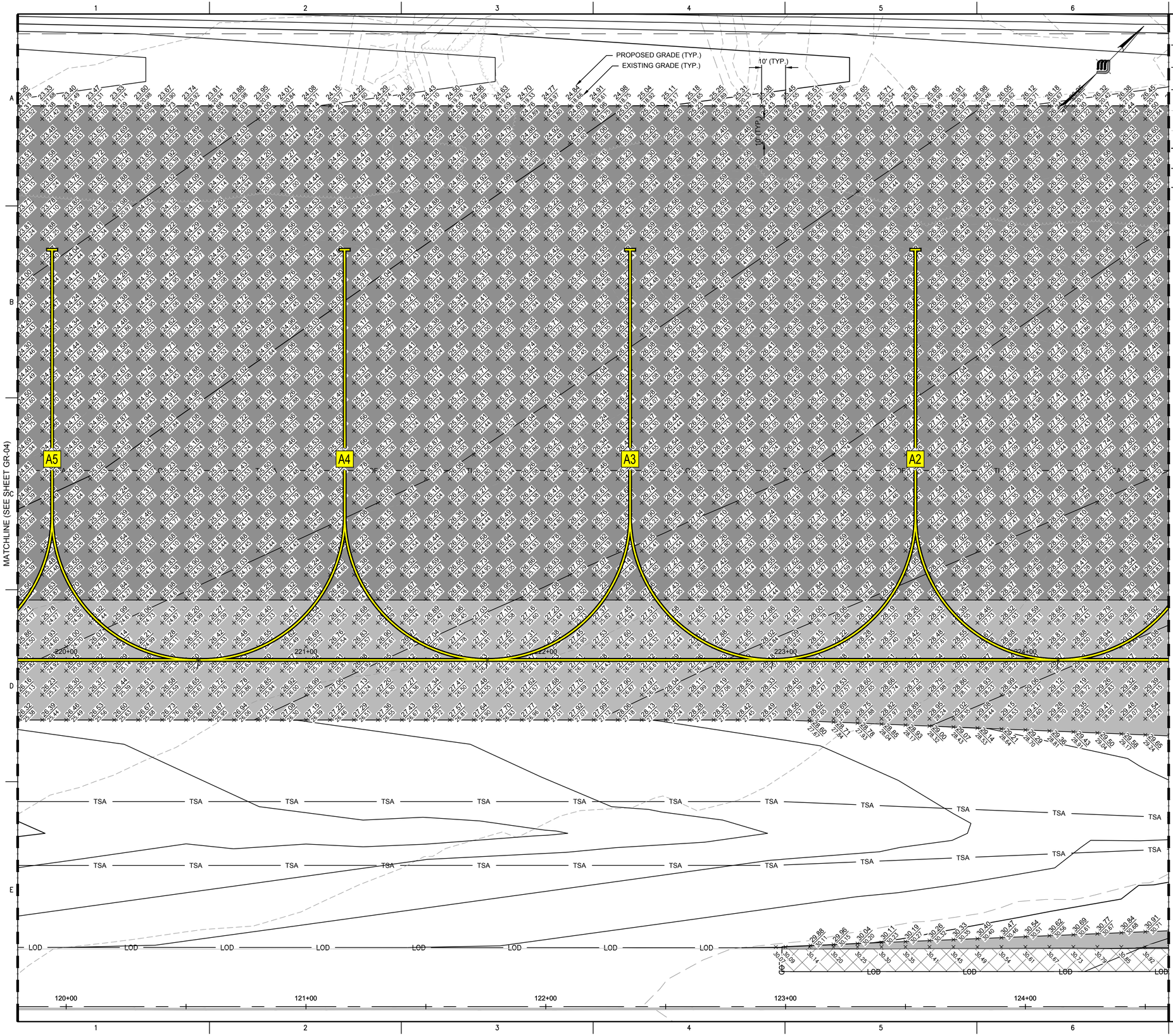


LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- 45.0 — EXISTING MAJOR CONTOUR
- 45.5 — EXISTING MINOR CONTOUR
- 45.0 — PROPOSED MAJOR CONTOUR
- 45.5 — PROPOSED MINOR CONTOUR
- LOD — LIMITS OF DISTURBANCE

0 20 40 60 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**

NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=20'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

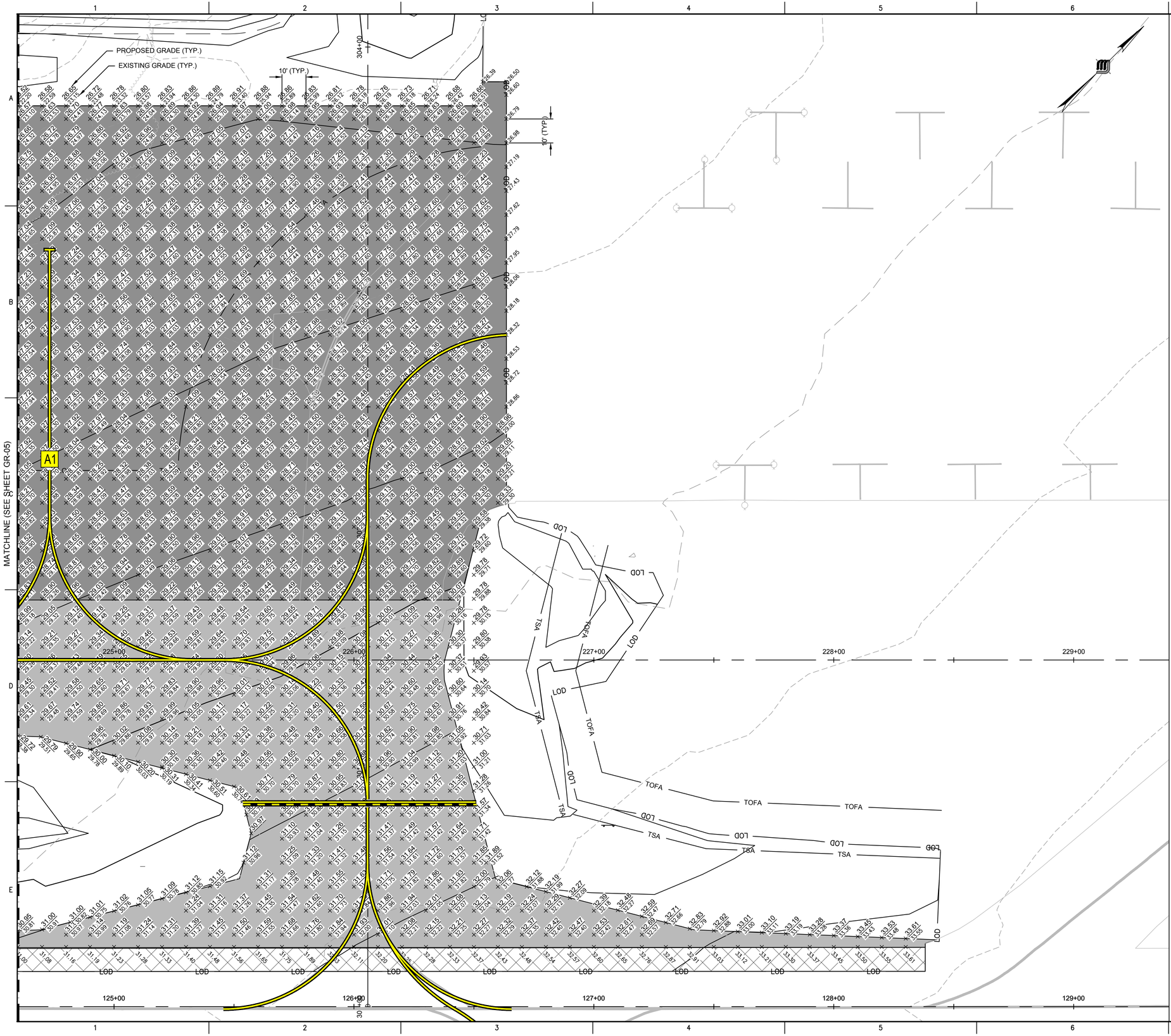
SPOT GRADING PLAN (SHEET 3 OF 4)

DRAWING NUMBER

GR-06

35 OF 72

K:\NANTUCKET\1-18706.07 ACK-SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-GRAD SPOT.DWG



LEGEND

TSA	TAXILANE SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
TLOFA	TAXILANE OBJECT FREE AREA
45.0	EXISTING MAJOR CONTOUR
45.5	EXISTING MINOR CONTOUR
45.0	PROPOSED MAJOR CONTOUR
45.5	PROPOSED MINOR CONTOUR
LOD	LIMITS OF DISTURBANCE

0 20 40 60 FT

SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**

PROJECT: **NANTUCKET, MASSACHUSETTS**

SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=20'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

SPOT GRADING PLAN (SHEET 4 OF 4)

DRAWING NUMBER

GR-07

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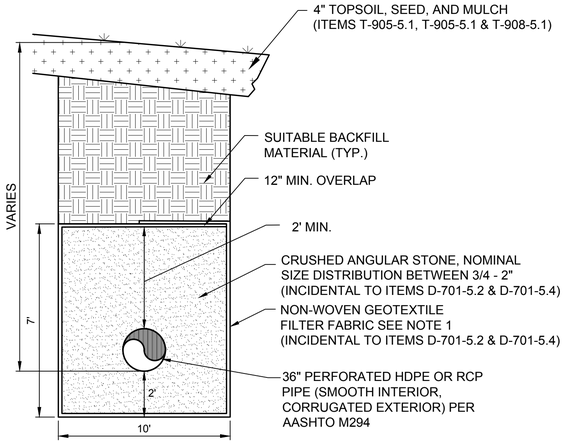
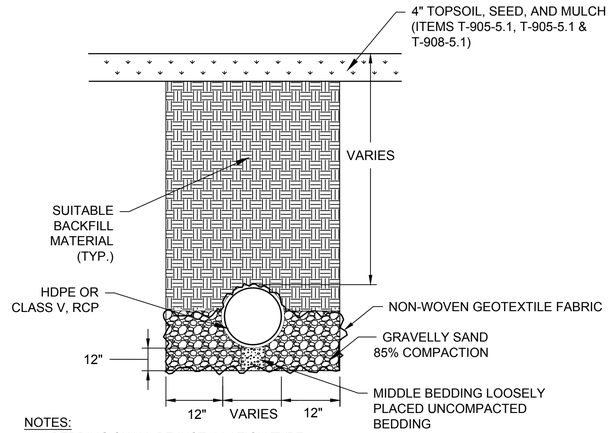

4" TOPSOIL, SEED, AND MULCH
(ITEMS T-905-5.1, T-905-5.1 & T-908-5.1)
SUITABLE BACKFILL MATERIAL (TYP.)
12" MIN. OVERLAP
2' MIN.
CRUSHED ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2"
(INCIDENTAL TO ITEMS D-701-5.2 & D-701-5.4)
NON-WOVEN GEOTEXTILE FILTER FABRIC SEE NOTE 1
(INCIDENTAL TO ITEMS D-701-5.2 & D-701-5.4)
36" PERFORATED HDPE OR RCP PIPE (SMOOTH INTERIOR, CORRUGATED EXTERIOR) PER AASHTO M294
VARIES
7'
2'
10'

NOTES:
1. ALL COSTS ASSOCIATED WITH INFILTRATION PIPE INSTALLATION INCLUDING OUTLETS, CONNECTION TO STRUCTURE AND END SECTIONS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM D-701-5.5

36" PERFORATED HDPE OR RCP PIPE DETAIL

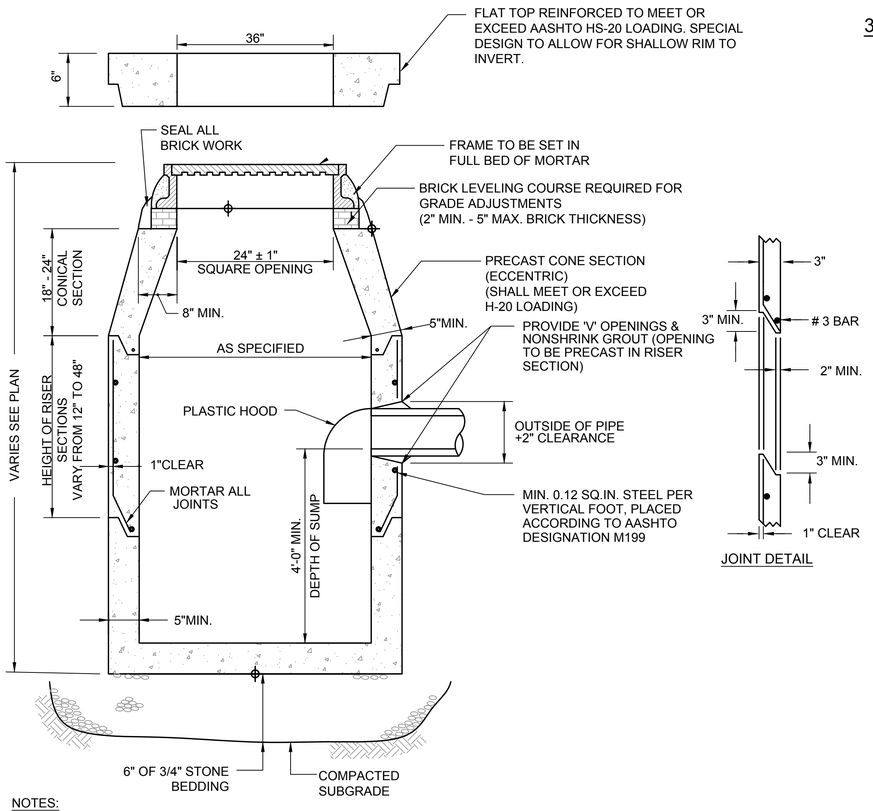
NOT TO SCALE
(ITEM D-701-5.5)



NOTES:
1. BEDDING SHALL BE INSTALLATION TYPE 3.
2. CONTRACTOR SHALL SHORE TRENCH SIDES AS REQUIRED.
3. CONTRACTOR SHALL DEWATER TRENCH EXCAVATION AS REQUIRED. (INCIDENTAL TO D-701 ITEMS)
4. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-1557 UNDER TURF AND 100% OF ASTM D-1557 WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.

DRAIN PIPE TRENCH DETAIL

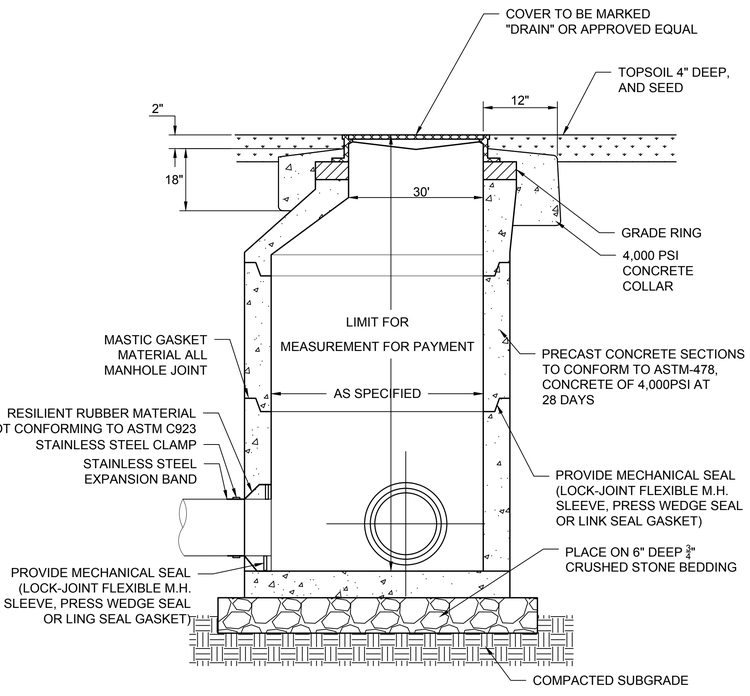
NOT TO SCALE
(ITEMS D-701-5.1 TO D-701-5.5)


FLAT TOP REINFORCED TO MEET OR EXCEED AASHTO HS-20 LOADING. SPECIAL DESIGN TO ALLOW FOR SHALLOW RIM TO INVERT.
36"
6"
SEAL ALL BRICK WORK
FRAME TO BE SET IN FULL BED OF MORTAR
BRICK LEVELING COURSE REQUIRED FOR GRADE ADJUSTMENTS
(2" MIN. - 5" MAX. BRICK THICKNESS)
18" - 24" CONICAL SECTION
24" ± 1" SQUARE OPENING
PRECAST CONE SECTION (ECCENTRIC) (SHALL MEET OR EXCEED H-20 LOADING)
8" MIN.
5"MIN.
PROVIDE 'V' OPENINGS & NONSHRINK GROUT (OPENING TO BE PRECAST IN RISER SECTION)
AS SPECIFIED
PLASTIC HOOD
OUTSIDE OF PIPE +2" CLEARANCE
VARIES SEE PLAN
HEIGHT OF RISER SECTIONS VARY FROM 12" TO 48"
1"CLEAR
MORTAR ALL JOINTS
MIN. 0.12 SQ.IN. STEEL PER VERTICAL FOOT, PLACED ACCORDING TO AASHTO DESIGNATION M199
4'-0" MIN. DEPTH OF SUMP
5"MIN.
6" OF 3/4" STONE BEDDING
COMPACTED SUBGRADE
3"
3" MIN.
3 BAR
2" MIN.
3" MIN.
1" CLEAR
JOINT DETAIL

NOTES:
1. CONCRETE STRENGTH 4,000 PSI @ 28 DAYS.
2. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.

5' DIAMETER CATCH BASIN DETAIL

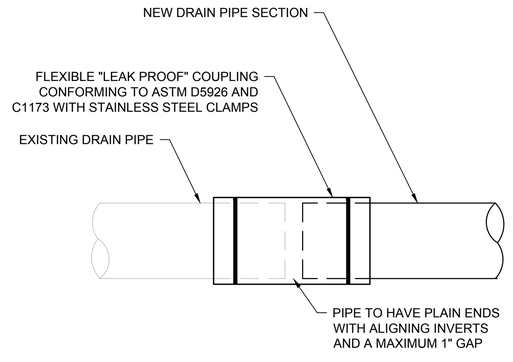
NOT TO SCALE
(ITEMS D-751-5.2 & D-751-5.3)


COVER TO BE MARKED "DRAIN" OR APPROVED EQUAL
TOPSOIL 4" DEEP, AND SEED
2"
12"
18"
30'
GRADE RING
4,000 PSI CONCRETE COLLAR
LIMIT FOR MEASUREMENT FOR PAYMENT
MASTIC GASKET MATERIAL ALL MANHOLE JOINT
PRECAST CONCRETE SECTIONS TO CONFORM TO ASTM-478, CONCRETE OF 4,000PSI AT 28 DAYS
AS SPECIFIED
RESILIENT RUBBER MATERIAL BOOT CONFORMING TO ASTM C923
STAINLESS STEEL CLAMP
STAINLESS STEEL EXPANSION BAND
PROVIDE MECHANICAL SEAL (LOCK-JOINT FLEXIBLE M.H. SLEEVE, PRESS WEDGE SEAL OR LINK SEAL GASKET)
PLACE ON 6" DEEP ¾" CRUSHED STONE BEDDING
PROVIDE MECHANICAL SEAL (LOCK-JOINT FLEXIBLE M.H. SLEEVE, PRESS WEDGE SEAL OR LING SEAL GASKET)
COMPACTED SUBGRADE

NOTES:
1. ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES AND FRAME AND GRATES SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT A MINIMUM OF AN H-20 LOADING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS.

6' DIAMETER DRAIN MANHOLE DETAIL

NOT TO SCALE
(ITEM D-751-5.1)


NEW DRAIN PIPE SECTION
FLEXIBLE "LEAK PROOF" COUPLING CONFORMING TO ASTM D5926 AND C1173 WITH STAINLESS STEEL CLAMPS
EXISTING DRAIN PIPE
PIPE TO HAVE PLAIN ENDS WITH ALIGNING INVERTS AND A MAXIMUM 1" GAP

PIPE CONNECTION DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEM D-701-5.1)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
CDW CONSULTANTS

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

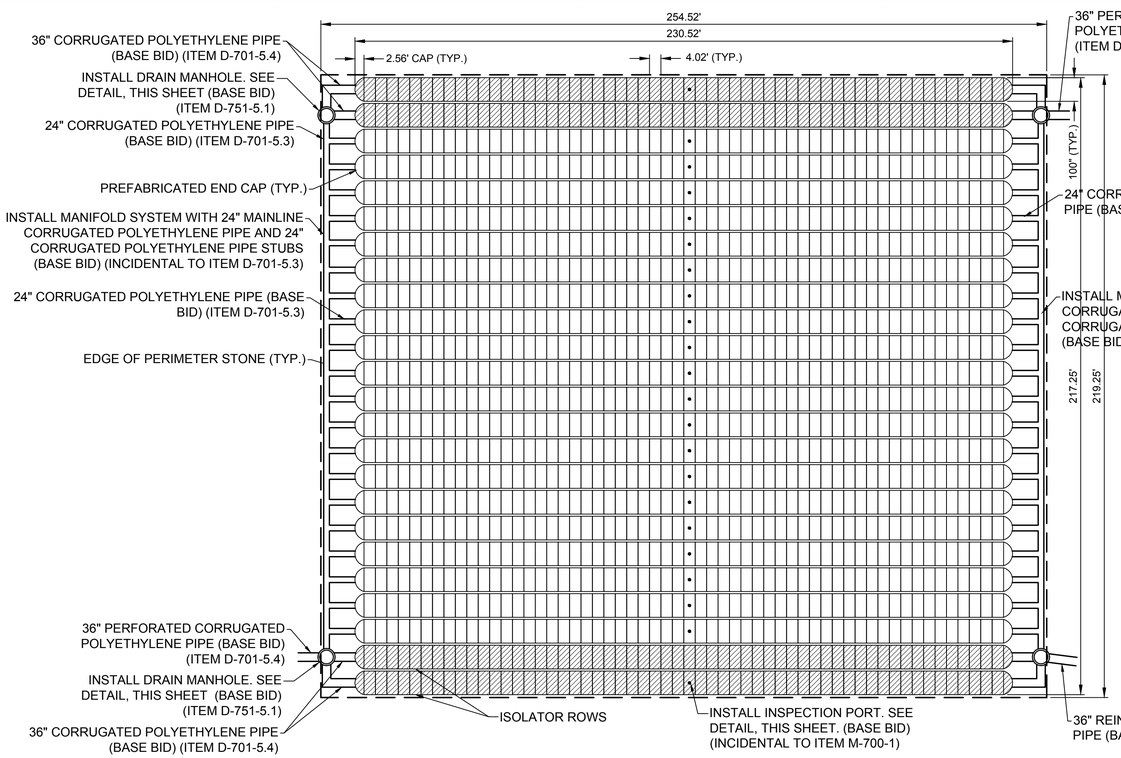
DRAINAGE DETAILS (SHEET 1 OF 2)

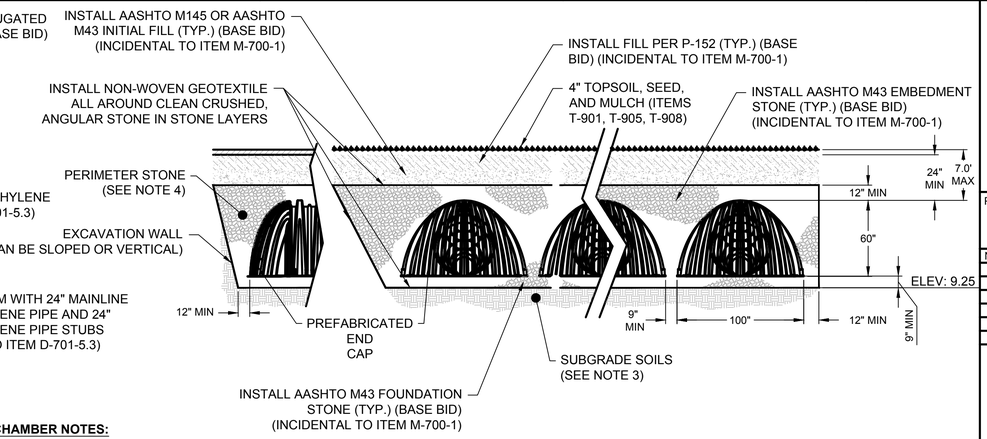
DRAWING NUMBER

GR-08

37 OF 72

K:\NANTUCKET\1-18706.07 ACK-SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-DETS.DWG


254.52'
230.52'
2.56' CAP (TYP.)
4.02' (TYP.)
36" CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.4)
INSTALL DRAIN MANHOLE. SEE DETAIL, THIS SHEET (BASE BID) (ITEM D-751-5.1)
24" CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.3)
PREFABRICATED END CAP (TYP.)
INSTALL MANIFOLD SYSTEM WITH 24" MAINLINE CORRUGATED POLYETHYLENE PIPE AND 24" CORRUGATED POLYETHYLENE PIPE STUBS (BASE BID) (INCIDENTAL TO ITEM D-701-5.3)
24" CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.3)
EDGE OF PERIMETER STONE (TYP.)
36" PERFORATED CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.4)
INSTALL DRAIN MANHOLE. SEE DETAIL, THIS SHEET (BASE BID) (ITEM D-751-5.1)
36" CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.4)
ISOLATOR ROWS
INSTALL INSPECTION PORT. SEE DETAIL, THIS SHEET. (BASE BID) (INCIDENTAL TO ITEM M-700-1)
36" PERFORATED CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.4)
100" (TYP.)
24" CORRUGATED POLYETHYLENE PIPE (BASE BID) (ITEM D-701-5.3)
INSTALL MANIFOLD SYSTEM WITH 24" MAINLINE CORRUGATED POLYETHYLENE PIPE AND 24" CORRUGATED POLYETHYLENE PIPE STUBS (BASE BID) (INCIDENTAL TO ITEM D-701-5.3)
217.25'
219.25'
36" REINFORCED CONCRETE PIPE (BASE BID) (ITEM D-701-5.2)


INSTALL AASHTO M145 OR AASHTO M43 INITIAL FILL (TYP.) (BASE BID) (INCIDENTAL TO ITEM M-700-1)
INSTALL FILL PER P-152 (TYP.) (BASE BID) (INCIDENTAL TO ITEM M-700-1)
INSTALL NON-WOVEN GEOTEXTILE ALL AROUND CLEAN CRUSHED, ANGULAR STONE IN STONE LAYERS
4" TOPSOIL, SEED, AND MULCH (ITEMS T-901, T-905, T-908)
INSTALL AASHTO M43 EMBEDMENT STONE (TYP.) (BASE BID) (INCIDENTAL TO ITEM M-700-1)
PERIMETER STONE (SEE NOTE 4)
EXCAVATION WALL (CAN BE SLOPED OR VERTICAL)
24" MIN
7.0' MAX
12" MIN
60"
ELEV: 9.25
12" MIN
PREFABRICATED END CAP
9" MIN
100"
12" MIN
9" MIN
SUBGRADE SOILS (SEE NOTE 3)
INSTALL AASHTO M43 FOUNDATION STONE (TYP.) (BASE BID) (INCIDENTAL TO ITEM M-700-1)

INFILTRATION CHAMBER NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
2. CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. CONTRACTOR'S MANUFACTURER SHALL ASSESS THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS AND SUBMIT A STAMPED DESIGN FOR APPROVAL.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

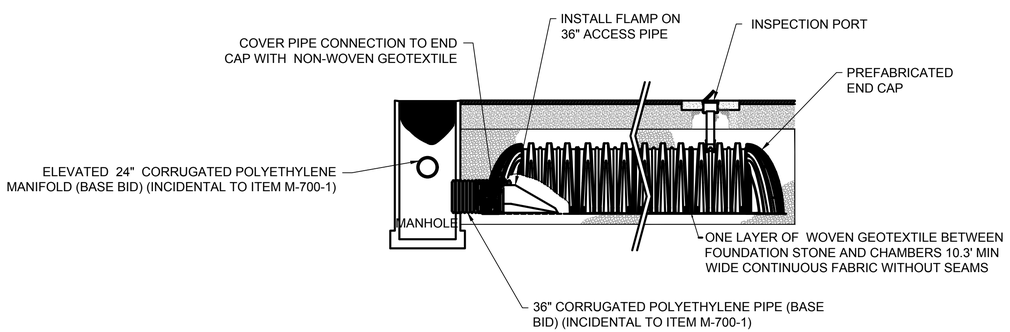
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.


INSTALL FLAMP ON 36" ACCESS PIPE
INSPECTION PORT
COVER PIPE CONNECTION TO END CAP WITH NON-WOVEN GEOTEXTILE
PREFABRICATED END CAP
ELEVATED 24" CORRUGATED POLYETHYLENE MANIFOLD (BASE BID) (INCIDENTAL TO ITEM M-700-1)
MANHOLE
ONE LAYER OF WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 10.3' MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS
36" CORRUGATED POLYETHYLENE PIPE (BASE BID) (INCIDENTAL TO ITEM M-700-1)

STORMWATER INFILTRATION SYSTEM DETAIL

NOT TO SCALE
(BASE BID) (ITEM M-700-1)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
CDW CONSULTANTS

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	ESW
DESIGNED	ESW
CHECKED	ESW
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

DRAINAGE DETAILS (SHEET 2 OF 2)

DRAWING NUMBER
GR-09

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-DETS.DWG

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	FROM STRC	TO STRC	MATERIAL / ITEM #
P1	36"	20.47'	0.83%	CB-14	DMH-16	PERFORATED HDPE / D-701-5.5 (BASE BID)
P2	24"	39.05'	1.74%		DMH-16	RCP / D-701-5.1 (BASE BID)
P3	36"	314.48'	0.50%	DMH-16	DMH-15	RCP / D-701-5.2 (BASE BID)
P4	36"	7.99'	0.50%	CB-13	DMH-15	PERFORATED HDPE / D-701-5.5 (BASE BID)
P5	36"	240.00'	0.50%	DMH-15	DMH-14	PERFORATED HDPE / D-701-5.5 (BASE BID)
P6	36"	8.00'	0.50%	CB-12	DMH-14	PERFORATED HDPE / D-701-5.5 (BASE BID)
P7	36"	256.00'	0.51%	DMH-14	DMH-13	PERFORATED HDPE / D-701-5.5 (BASE BID)
P8	36"	8.00'	0.50%	CB-11	DMH-13	PERFORATED HDPE / D-701-5.5 (BASE BID)
P9	36"	240.00'	0.50%	DMH-13	DMH-12	PERFORATED HDPE / D-701-5.5 (BASE BID)
P10	36"	8.00'	0.50%	CB-10	DMH-12	PERFORATED HDPE / D-701-5.5 (BASE BID)
P11	36"	316.93'	0.50%	DMH-12	DMH-11	RCP / D-701-5.2 (BASE BID)
P12	36"	83.64'	0.59%	CB-8	DMH-9	PERFORATED HDPE / D-701-5.5 (BASE BID)
P13	36"	13.06'	0.54%	CB-7	DMH-9	PERFORATED HDPE / D-701-5.5 (BASE BID)
P14	36"	62.48'	0.50%	DMH-9	DMH-8	PERFORATED HDPE / D-701-5.5 (BASE BID)
P15	36"	80.00'	0.50%	DMH-8	DMH-7	PERFORATED HDPE / D-701-5.5 (BASE BID)
P16	36"	10.00'	0.50%	CB-6	DMH-7	PERFORATED HDPE / D-701-5.5 (BASE BID)
P17	36"	200.00'	0.50%	DMH-7	DMH-6	PERFORATED HDPE / D-701-5.5 (BASE BID)
P18	36"	10.00'	0.50%	CB-5	DMH-6	PERFORATED HDPE / D-701-5.5 (BASE BID)
P19	36"	300.00'	0.50%	DMH-6	DMH-5	PERFORATED HDPE / D-701-5.5 (BASE BID)
P20	36"	10.00'	0.50%	CB-4	DMH-5	PERFORATED HDPE / D-701-5.5 (BASE BID)

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	FROM STRC	TO STRC	MATERIAL / ITEM #
P21	36"	300.00'	0.50%	DMH-5	DMH-4	PERFORATED HDPE / D-701-5.5 (BASE BID)
P22	36"	10.00'	0.50%	CB-3	DMH-4	PERFORATED HDPE / D-701-5.5 (BASE BID)
P23	36"	340.00'	0.50%	DMH-4	DMH-3	PERFORATED HDPE / D-701-5.5 (BASE BID)
P24	36"	14.02'	0.50%	CB-2	DMH-3	PERFORATED HDPE / D-701-5.5 (BASE BID)
P25	36"	99.63'	0.50%	DMH-3	DMH-2B	PERFORATED HDPE / D-701-5.5 (BASE BID)
P26	36"	10.00'	0.50%	CB-1	DMH-2B	PERFORATED HDPE / D-701-5.5 (BASE BID)
P27	36"	10.02'	0.50%	DMH-2B	DMH-2A	PERFORATED HDPE / D-701-5.5 (BASE BID)
P28	36"	10.00'	0.00%	DMH-2A		HDPE / D-701-5.4 (BASE BID)
P29	24"	190.68'	0.00%	DMH-11	DMH-2A	HDPE / D-701-5.4 (BASE BID)
P30	36"	9.99'	0.00%	DMH-11		HDPE / D-701-5.4 (BASE BID)
P31	36"	10.99'	0.00%		DMH-10A	HDPE / D-701-5.4 (BASE BID)
P32	36"	10.00'	0.00%	DMH-10A	DMH-10B	HDPE / D-701-5.4 (BASE BID)
P33	24"	190.68'	0.00%	DMH-10A	DMH-1	PERFORATED HDPE / D-701-5.5 (BASE BID)
P34	36"	62.79'	0.00%	CB-9	DMH-10B	PERFORATED HDPE / D-701-5.5 (BASE BID)

STRUCTURE TABLE						
STRUCTURE	RIM	INV(S) IN	INV OUT	ITEM #	NORTHING	EASTING
CB-1	18.58		10.30	D-751-5.2 (BASE BID)	91462.23	1758184.01
CB-2	19.20		10.82	D-751-5.2 (BASE BID)	91548.52	1758100.50
CB-3	20.84		12.60	D-751-5.2 (BASE BID)	91781.26	1758360.91
CB-4	22.78		14.20	D-751-5.2 (BASE BID)	91994.39	1758572.06
CB-5	24.83		15.80	D-751-5.2 (BASE BID)	92207.51	1758783.20
CB-6	26.15		16.90	D-751-5.2 (BASE BID)	92349.60	1758923.96
CB-7	21.93		17.83	D-751-5.2 (BASE BID)	92483.88	1758969.47
CB-8	24.15		18.25	D-751-5.2 (BASE BID)	92556.45	1758943.04
CB-9	16.50		10.00	D-751-5.2 (BASE BID)	91163.94	1758066.75
CB-10	22.36		11.84	D-751-5.2 (BASE BID)	91525.26	1758554.42
CB-11	23.79		13.14	D-751-5.2 (BASE BID)	91695.76	1758723.33
CB-12	25.31		14.54	D-751-5.2 (BASE BID)	91877.62	1758903.51
CB-13	28.18		15.84	D-751-5.2 (BASE BID)	92048.12	1759072.41
CB-14	30.17		17.65	D-751-5.2 (BASE BID)	92320.69	1759217.50
DMH-1	21.39	11.92		D-751-5.1 (BASE BID)	91289.89	1757999.21
DMH-2A	19.40	10.10 11.92	10.00	D-751-5.1 (BASE BID)	91462.14	1758169.85
DMH-2B	18.40	10.25 10.15	10.15	D-751-5.1 (BASE BID)	91469.26	1758176.91
DMH-3	19.18	10.75 10.75	10.65	D-751-5.1 (BASE BID)	91546.87	1758114.43
DMH-4	21.29	12.55 12.55	12.45	D-751-5.1 (BASE BID)	91788.31	1758353.82
DMH-5	23.22	14.15 14.15	14.05	D-751-5.1 (BASE BID)	92001.43	1758564.96

STRUCTURE TABLE						
STRUCTURE	RIM	INV(S) IN	INV OUT	ITEM #	NORTHING	EASTING
DMH-6	25.27	15.75 15.75	15.65	D-751-5.1 (BASE BID)	92214.55	1758776.09
DMH-7	26.61	16.85 16.85	16.75	D-751-5.1 (BASE BID)	92356.63	1758916.85
DMH-8	26.15	17.35	17.25	D-751-5.1 (BASE BID)	92413.47	1758973.15
DMH-9	23.83	17.76 17.76	17.66	D-751-5.1 (BASE BID)	92474.61	1758960.28
DMH-10A	18.90	10.00	10.00 11.92	D-751-5.1 (BASE BID)	91155.69	1758134.67
DMH-10B	18.89	10.00 10.00		D-751-5.1 (BASE BID)	91148.59	1758127.64
DMH-11	21.91	10.10	10.00 11.92	D-751-5.1 (BASE BID)	91327.94	1758305.32
DMH-12	23.26	11.80 11.80	11.70	D-751-5.1 (BASE BID)	91530.89	1758548.74
DMH-13	24.47	13.10 13.10	13.00	D-751-5.1 (BASE BID)	91701.39	1758717.65
DMH-14	26.15	14.50 14.50	14.40	D-751-5.1 (BASE BID)	91883.25	1758897.82
DMH-15	28.18	15.80 15.80	15.70	D-751-5.1 (BASE BID)	92053.74	1759066.73
DMH-16	29.96	17.48 22.46	17.38	D-751-5.1 (BASE BID)	92317.66	1759237.74

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
CDW CONSULTANTS

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	NONE
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

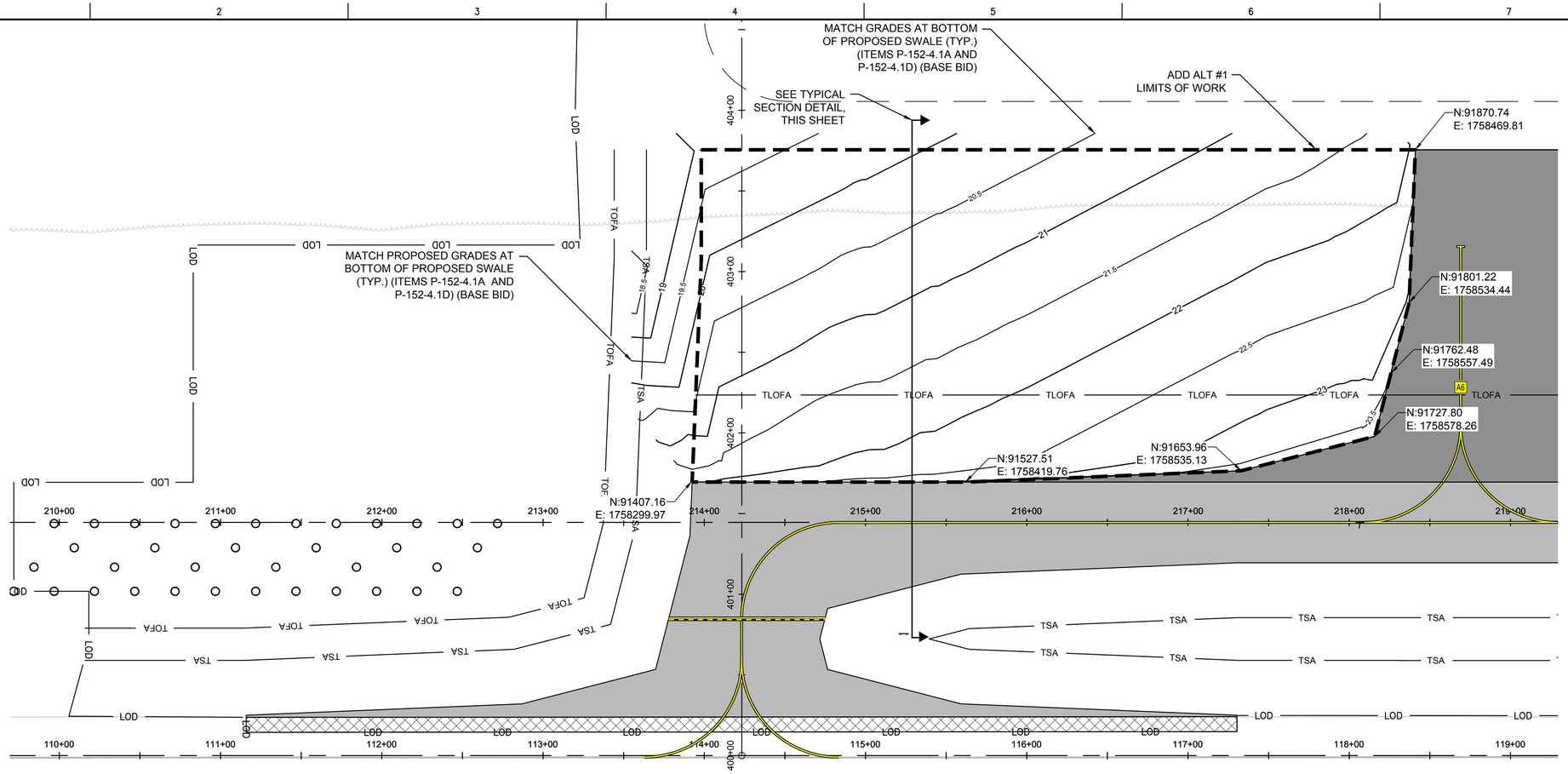
DRAWING TITLE

DRAINAGE PIPE AND STRUCTURE SCHEDULE

DRAWING NUMBER

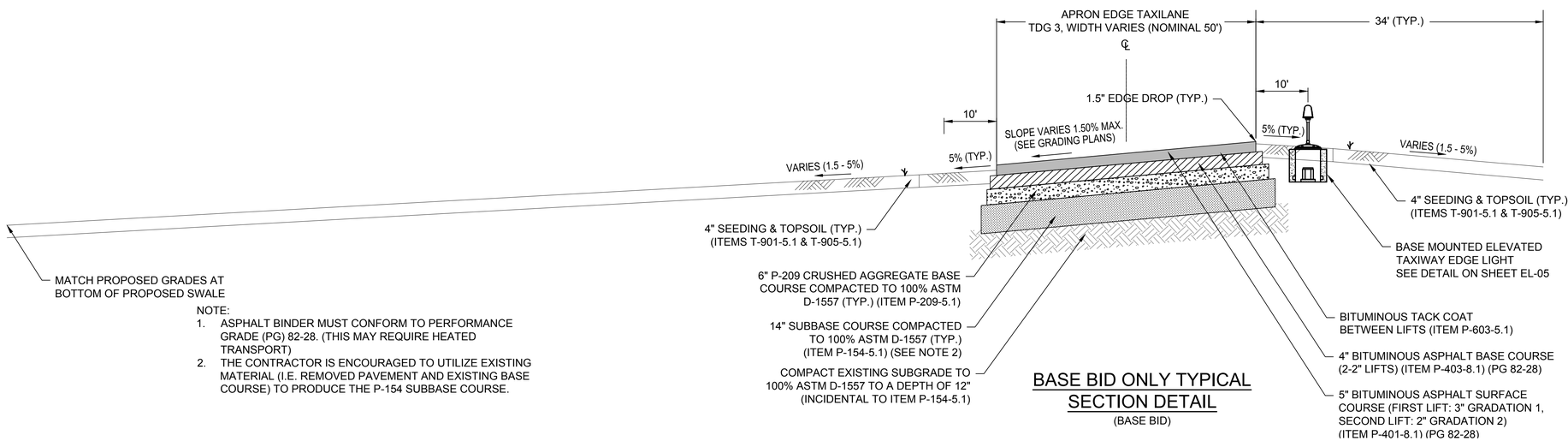
GR-10

K:\NANTUCHE\T1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-GRAD & DRAIN.DWG



BASE BID ONLY TIE-IN DETAIL

(BASE BID)


APRON EDGE TAXILANE
TDG 3, WIDTH VARIES (NOMINAL 50')
34' (TYP.)
10'
10'
1.5" EDGE DROP (TYP.)
SLOPE VARIES 1.50% MAX. (SEE GRADING PLANS)
5% (TYP.)
5% (TYP.)
VARIES (1.5 - 5%)
VARIES (1.5 - 5%)
4" SEEDING & TOPSOIL (TYP.) (ITEMS T-901-5.1 & T-905-5.1)
4" SEEDING & TOPSOIL (TYP.) (ITEMS T-901-5.1 & T-905-5.1)
BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT SEE DETAIL ON SHEET EL-05
MATCH PROPOSED GRADES AT BOTTOM OF PROPOSED SWALE
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1) (SEE NOTE 2)
COMPACT EXISTING SUBGRADE TO 100% ASTM D-1557 TO A DEPTH OF 12" (INCIDENTAL TO ITEM P-154-5.1)
BITUMINOUS TACK COAT BETWEEN LIFTS (ITEM P-603-5.1)
4" BITUMINOUS ASPHALT BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
5" BITUMINOUS ASPHALT SURFACE COURSE (FIRST LIFT: 3" GRADATION 1, SECOND LIFT: 2" GRADATION 2) (ITEM P-401-8.1) (PG 82-28)

NOTE:
1. ASPHALT BINDER MUST CONFORM TO PERFORMANCE GRADE (PG) 82-28. (THIS MAY REQUIRE HEATED TRANSPORT)
2. THE CONTRACTOR IS ENCOURAGED TO UTILIZE EXISTING MATERIAL (I.E. REMOVED PAVEMENT AND EXISTING BASE COURSE) TO PRODUCE THE P-154 SUBBASE COURSE.

BASE BID ONLY TYPICAL SECTION DETAIL

(BASE BID)

NOTES:
1. **IF ADD ALT 2 IS NOT AWARDED, CONTRACTOR SHALL NOT PERFORM WITHIN ADD ALT 2 AREA EXCEPT AS DETAILED ON THIS SHEET.**

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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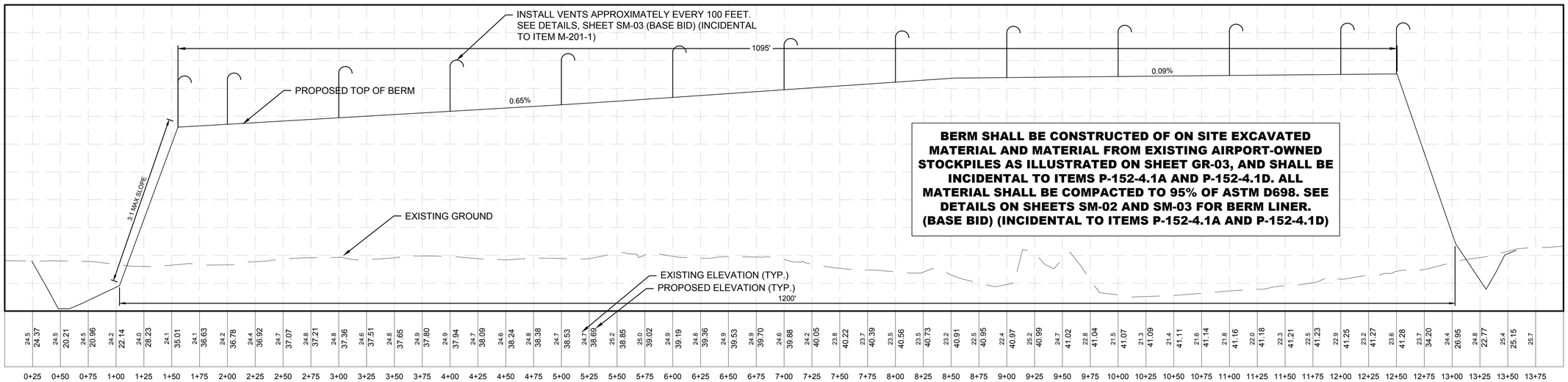
DRAWING TITLE

BASE BID TIE-IN DETAIL

DRAWING NUMBER

GR-11

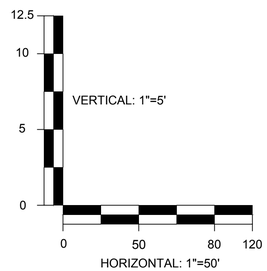
K:\NANTUCKET\1-18706.07 ADX SOUTH APRON EXPANSION\DRAWING\RAWINGS\SHEET FILES\18706.07-ADD ALT.DWG



BERM SHALL BE CONSTRUCTED OF ON SITE EXCAVATED MATERIAL AND MATERIAL FROM EXISTING AIRPORT-OWNED STOCKPILES AS ILLUSTRATED ON SHEET GR-03, AND SHALL BE INCIDENTAL TO ITEMS P-152-4.1A AND P-152-4.1D. ALL MATERIAL SHALL BE COMPACTED TO 95% OF ASTM D698. SEE DETAILS ON SHEETS SM-02 AND SM-03 FOR BERM LINER. (BASE BID) (INCIDENTAL TO ITEMS P-152-4.1A AND P-152-4.1D)

SURPLUS MATERIAL STOCKPILE PROFILE
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'

LEGEND
- PROPOSED GROUND
- EXISTING GROUND
- PROPOSED SURPLUS MATERIAL STOCKPILE



McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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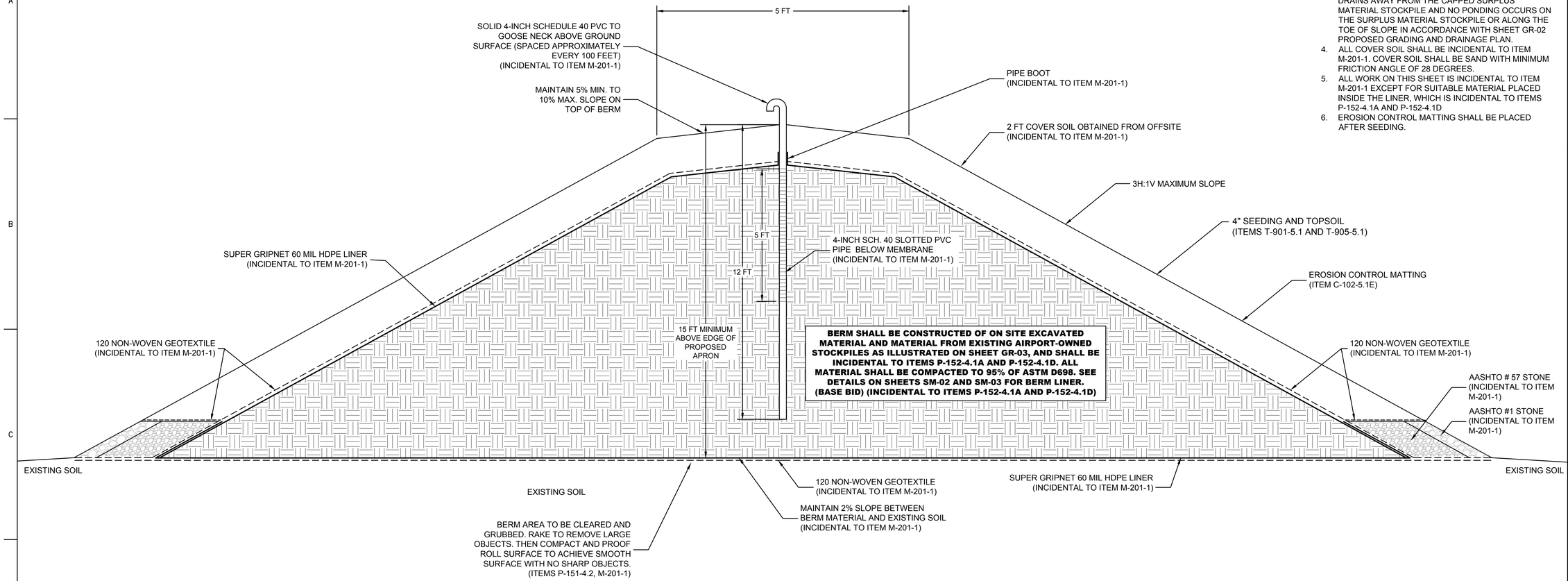
DRAWING TITLE
SURPLUS MATERIAL STOCKPILE PLAN & PROFILE

DRAWING NUMBER
SM-01
41 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\GRAW\GRAWINGS\SHEET FILES\18706.07-BERM.DWG

NOTES:
1. GEOMEMBRANE PRODUCT MUST MEET MINIMUM INTERFACE FRICTION ANGLE VALUE OF 25° OR ADHESION VALUE OF 170 PSF AT CRITICAL INTERFACE IN ACCORDANCE WITH ASTM D6243.
2. NONWOVEN GEOTEXTILE SHALL BE AGRUTEX(R) 120 NONWOVEN GEOTEXTILE OR EQUAL.
3. CONTRACTOR SHALL GRADE SITE SO THAT SITE DRAINS AWAY FROM THE CAPPED SURPLUS MATERIAL STOCKPILE AND NO PONDING OCCURS ON THE SURPLUS MATERIAL STOCKPILE OR ALONG THE TOE OF SLOPE IN ACCORDANCE WITH SHEET GR-02 PROPOSED GRADING AND DRAINAGE PLAN.
4. ALL COVER SOIL SHALL BE INCIDENTAL TO ITEM M-201-1. COVER SOIL SHALL BE SAND WITH MINIMUM FRICTION ANGLE OF 28 DEGREES.
5. ALL WORK ON THIS SHEET IS INCIDENTAL TO ITEM M-201-1 EXCEPT FOR SUITABLE MATERIAL PLACED INSIDE THE LINER, WHICH IS INCIDENTAL TO ITEMS P-152-4.1A AND P-152-4.1D
6. EROSION CONTROL MATTING SHALL BE PLACED AFTER SEEDING.


5 FT
SOLID 4-INCH SCHEDULE 40 PVC TO GOOSE NECK ABOVE GROUND SURFACE (SPACED APPROXIMATELY EVERY 100 FEET) (INCIDENTAL TO ITEM M-201-1)
MAINTAIN 5% MIN. TO 10% MAX. SLOPE ON TOP OF BERM
PIPE BOOT (INCIDENTAL TO ITEM M-201-1)
2 FT COVER SOIL OBTAINED FROM OFFSITE (INCIDENTAL TO ITEM M-201-1)
3H:1V MAXIMUM SLOPE
4" SEEDING AND TOPSOIL (ITEMS T-901-5.1 AND T-905-5.1)
EROSION CONTROL MATTING (ITEM C-102-5.1E)
SUPER GRIPNET 60 MIL HDPE LINER (INCIDENTAL TO ITEM M-201-1)
5 FT
4-INCH SCH. 40 SLOTTED PVC PIPE BELOW MEMBRANE (INCIDENTAL TO ITEM M-201-1)
12 FT
15 FT MINIMUM ABOVE EDGE OF PROPOSED APRON
BERM SHALL BE CONSTRUCTED OF ON SITE EXCAVATED MATERIAL AND MATERIAL FROM EXISTING AIRPORT-OWNED STOCKPILES AS ILLUSTRATED ON SHEET GR-03, AND SHALL BE INCIDENTAL TO ITEMS P-152-4.1A AND P-152-4.1D. ALL MATERIAL SHALL BE COMPACTED TO 95% OF ASTM D698. SEE DETAILS ON SHEETS SM-02 AND SM-03 FOR BERM LINER. (BASE BID) (INCIDENTAL TO ITEMS P-152-4.1A AND P-152-4.1D)
120 NON-WOVEN GEOTEXTILE (INCIDENTAL TO ITEM M-201-1)
120 NON-WOVEN GEOTEXTILE (INCIDENTAL TO ITEM M-201-1)
AASHTO # 57 STONE (INCIDENTAL TO ITEM M-201-1)
AASHTO #1 STONE (INCIDENTAL TO ITEM M-201-1)
EXISTING SOIL
EXISTING SOIL
EXISTING SOIL
120 NON-WOVEN GEOTEXTILE (INCIDENTAL TO ITEM M-201-1)
MAINTAIN 2% SLOPE BETWEEN BERM MATERIAL AND EXISTING SOIL (INCIDENTAL TO ITEM M-201-1)
SUPER GRIPNET 60 MIL HDPE LINER (INCIDENTAL TO ITEM M-201-1)
BERM AREA TO BE CLEARED AND GRUBBED. RAKE TO REMOVE LARGE OBJECTS. THEN COMPACT AND PROOF ROLL SURFACE TO ACHIEVE SMOOTH SURFACE WITH NO SHARP OBJECTS. (ITEMS P-151-4.2, M-201-1)

COVER SYSTEM SECTION DESIGN

A

N.T.S

(BASE BID) (INCIDENTAL TO ITEM M-201-1)

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
WESTON SOLUTIONS
1400 WESTON WAY WEST CHESTER, PA 19380

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	DCH
DESIGNED	DCH
CHECKED	DCH
SCALE	AS NOTED
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

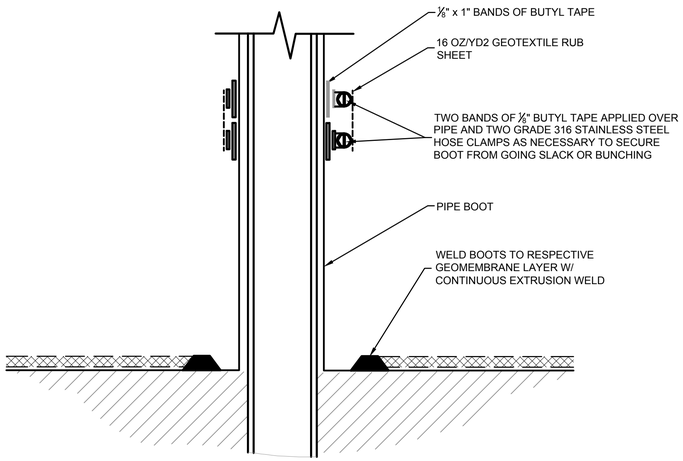
SURPLUS MATERIAL STOCKPILE CROSS SECTION

DRAWING NUMBER

SM-02

42 OF 72

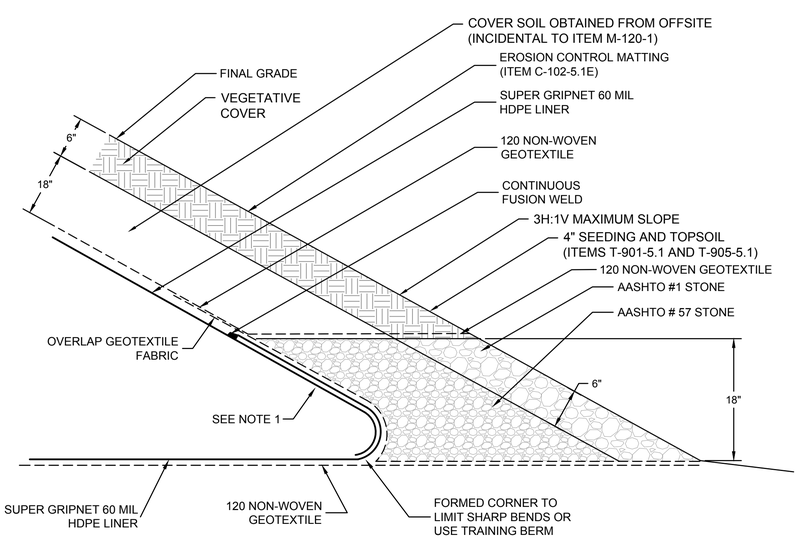
K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\RAWING\SHEET FILES\18706.07-BERM.DWG


⅛" x 1" BANDS OF BUTYL TAPE
16 OZ/YD2 GEOTEXTILE RUB SHEET
TWO BANDS OF ⅛" BUTYL TAPE APPLIED OVER PIPE AND TWO GRADE 316 STAINLESS STEEL HOSE CLAMPS AS NECESSARY TO SECURE BOOT FROM GOING SLACK OR BUNCHING
PIPE BOOT
WELD BOOTS TO RESPECTIVE GEOMEMBRANE LAYER W/ CONTINUOUS EXTRUSION WELD

NOTES:
1. USE ONLY ONE BOOT AND DOUBLE CLAMP SET FOR PIPE PENETRATIONS THROUGH COVER SYSTEM.
2. CUT GEOTEXTILE AND GEOMEMBRANE AROUND PENETRATION.
3. ALL PIPE PENETRATIONS THROUGH LINER SYSTEM TO BE LEAK PROOF AND SPARK TESTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

VENT PIPE PENETRATION DETAIL — 1

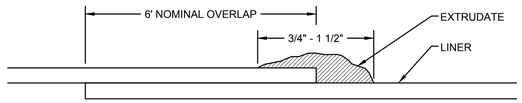
N.T.S
(BASE BID)(INCIDENTAL TO ITEM M-201-1)


COVER SOIL OBTAINED FROM OFFSITE (INCIDENTAL TO ITEM M-120-1)
EROSION CONTROL MATTING (ITEM C-102-5.1E)
SUPER GRIPNET 60 MIL HDPE LINER
120 NON-WOVEN GEOTEXTILE
CONTINUOUS FUSION WELD
3H:1V MAXIMUM SLOPE
4" SEEDING AND TOPSOIL (ITEMS T-901-5.1 AND T-905-5.1)
120 NON-WOVEN GEOTEXTILE
AASHTO #1 STONE
AASHTO # 57 STONE
FINAL GRADE
VEGETATIVE COVER
6"
18"
OVERLAP GEOTEXTILE FABRIC
SEE NOTE 1
SUPER GRIPNET 60 MIL HDPE LINER
120 NON-WOVEN GEOTEXTILE
FORMED CORNER TO LIMIT SHARP BENDS OR USE TRAINING BERM

NOTES:
1. OVERLAP GEOMEMBRANE ON SLOPE WITH UNDERLINER GEOTEXTILE A MINIMUM OF FIVE FEET PRIOR TO WELDING COVER SYSTEM GEOMEMBRANE.

TYPICAL ENGINEERED COVER TOE OF SLOPE SECTION — 4

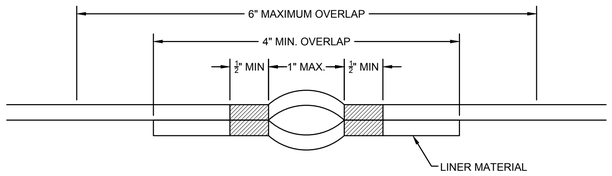
N.T.S
(BASE BID)(INCIDENTAL TO ITEM M-201-1)



NOTES:
1. LINER SHEETS TACK WELDED TOGETHER AT OVERLAP TO FORM TEMPORARY BOND PRIOR TO WELDING.
2. VACUUM TESTING IS THE NONDESTRUCTION SEAM TEST METHOD FOR EXTRUSION WELDS.

EXTRUSION WELD DETAIL — 2

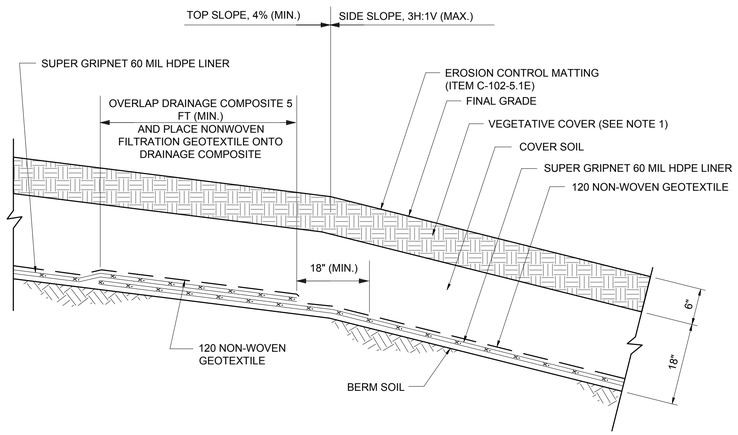
N.T.S
(BASE BID)(INCIDENTAL TO ITEM M-201-1)



NOTES:
1. AIR PRESSURE TESTING IS THE PRIMARY METHOD FOR TESTING DOUBLE FUSION WELDING.

FUSION WELD DETAIL — 3

N.T.S
(BASE BID)(INCIDENTAL TO ITEM M-201-1)

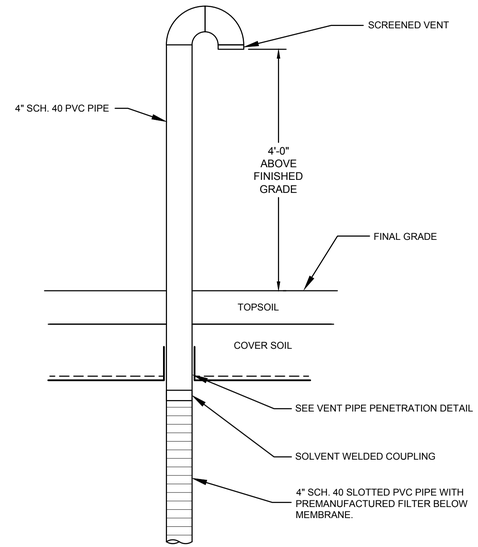

TOP SLOPE, 4% (MIN.)
SIDE SLOPE, 3H:1V (MAX.)
SUPER GRIPNET 60 MIL HDPE LINER
OVERLAP DRAINAGE COMPOSITE 5 FT (MIN.) AND PLACE NONWOVEN FILTRATION GEOTEXTILE ONTO DRAINAGE COMPOSITE
EROSION CONTROL MATTING (ITEM C-102-5.1E)
FINAL GRADE
VEGETATIVE COVER (SEE NOTE 1)
COVER SOIL
SUPER GRIPNET 60 MIL HDPE LINER
120 NON-WOVEN GEOTEXTILE
18" (MIN.)
6"
18"
120 NON-WOVEN GEOTEXTILE
BERM SOIL

TYPICAL ENGINEERED COVER CROSS SECTION — 5

N.T.S
(BASE BID)(INCIDENTAL TO ITEM M-201-1)

NOTES:
1. COVER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS FOUND IN ITEM M-201 MATERIAL SURPLUS STOCKPILE COVER SYSTEM.

NOTES:
1. COVER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS FOUND IN ITEM M-201-1 MATERIAL SURPLUS STOCKPILE COVER SYSTEM.



VENT DETAIL — 6

N.T.S
(BASE BID)(INCIDENTAL TO ITEM M-201-1)

NOTES:
1. AIR VENTS SHALL BE INSTALLED AT EACH END OF THE PROPOSED BERM AND EVERY 100 FT IN BETWEEN.

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720
WESTON SOLUTIONS
1400 WESTON WAY WEST CHESTER, PA 19380

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS NOTED
DATE	SEPTEMBER 2023
PROJECT	18706.07

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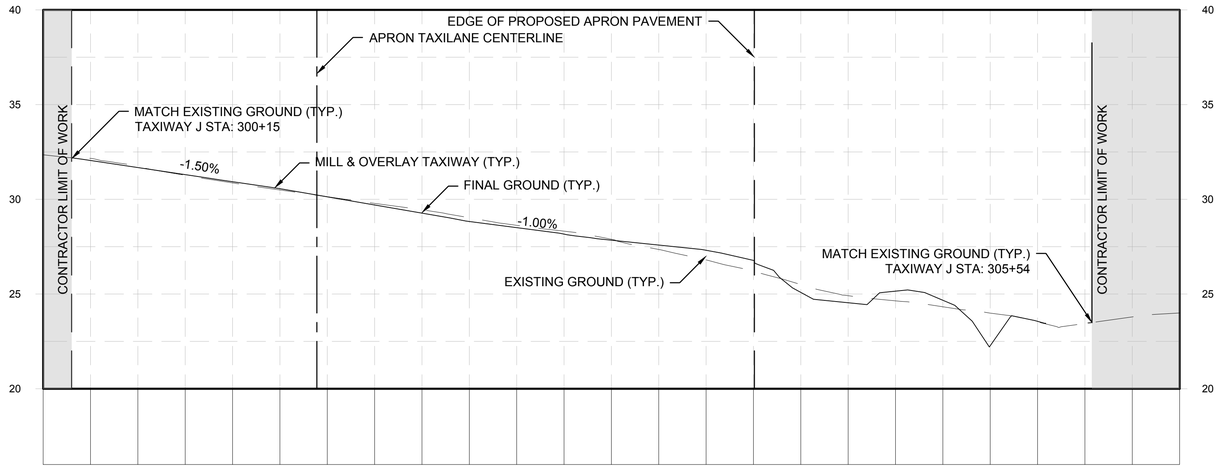
DRAWING TITLE

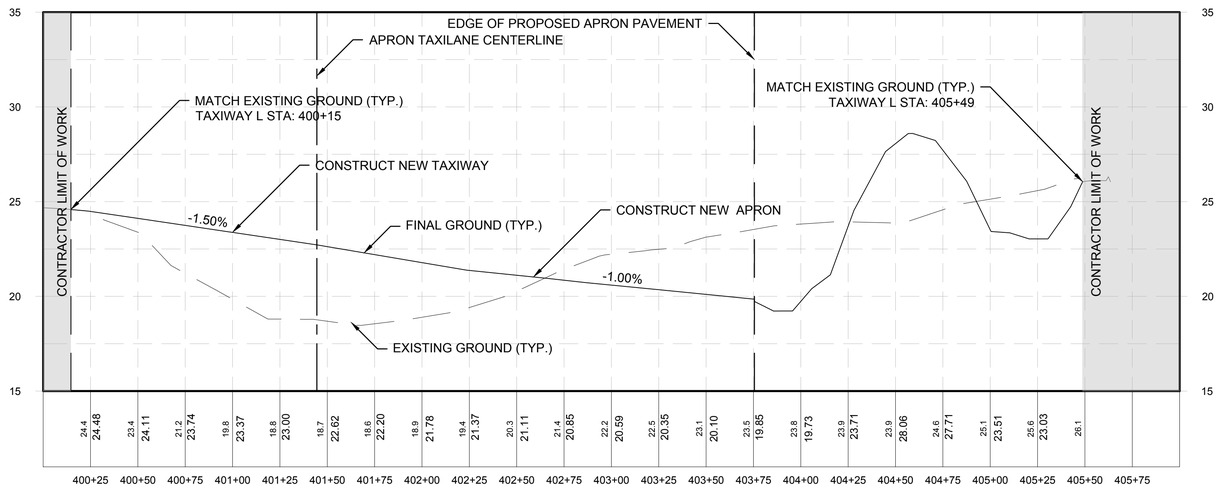
SURPLUS MATERIAL STOCKPILE DETAILS

DRAWING NUMBER
SM-03
43 OF 72

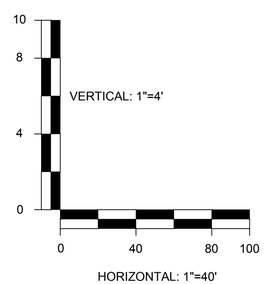
K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-BERM.DWG



TAXIWAY J PROFILE
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 4'



TAXIWAY L PROFILE
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 4'



McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

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NANTUCKET, MASSACHUSETTS

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DRAWN	MRB
DESIGNED	DMP
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SCALE	AS SHOWN
DATE	SEPTEMBER 2023
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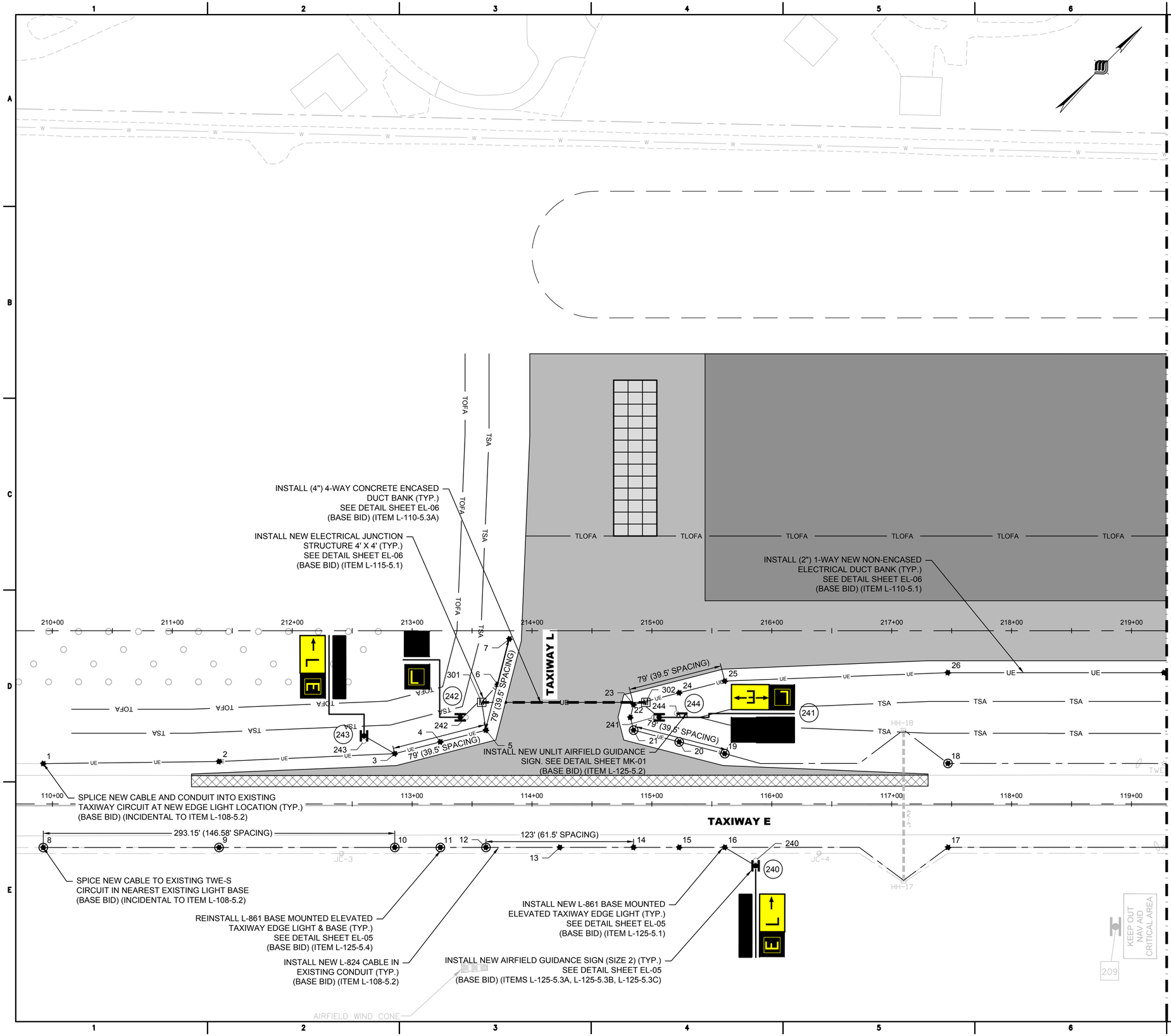
DRAWING TITLE

TAXIWAY PROFILES

DRAWING NUMBER

PR-01

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-PROF.DWG


TOFA
TSA
TLOFA
INSTALL (4") 4-WAY CONCRETE ENCASED DUCT BANK (TYP.) SEE DETAIL SHEET EL-06 (BASE BID) (ITEM L-110-5.3A)
INSTALL NEW ELECTRICAL JUNCTION STRUCTURE 4' X 4' (TYP.) SEE DETAIL SHEET EL-06 (BASE BID) (ITEM L-115-5.1)
INSTALL (2") 1-WAY NEW NON-ENCASED ELECTRICAL DUCT BANK (TYP.) SEE DETAIL SHEET EL-06 (BASE BID) (ITEM L-110-5.1)
MATCHLINE (SEE SHEET EL-02)
210+00
211+00
212+00
213+00
214+00
215+00
216+00
217+00
218+00
219+00
TAXIWAY L
79' (39.5' SPACING)
INSTALL NEW UNLIT AIRFIELD GUIDANCE SIGN. SEE DETAIL SHEET MK-01 (BASE BID) (ITEM L-125-5.2)
HH-18
TWE
110+00
113+00
114+00
115+00
116+00
117+00
118+00
119+00
SPLICE NEW CABLE AND CONDUIT INTO EXISTING TAXIWAY CIRCUIT AT NEW EDGE LIGHT LOCATION (TYP.) (BASE BID) (INCIDENTAL TO ITEM L-108-5.2)
TAXIWAY E
293.15' (146.58' SPACING)
123' (61.5' SPACING)
JC-3
JC-4
HH-17
SPICE NEW CABLE TO EXISTING TWE-S CIRCUIT IN NEAREST EXISTING LIGHT BASE (BASE BID) (INCIDENTAL TO ITEM L-108-5.2)
REINSTALL L-861 BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT & BASE (TYP.) SEE DETAIL SHEET EL-05 (BASE BID) (ITEM L-125-5.4)
INSTALL NEW L-824 CABLE IN EXISTING CONDUIT (TYP.) (BASE BID) (ITEM L-108-5.2)
INSTALL NEW L-861 BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT (TYP.) SEE DETAIL SHEET EL-05 (BASE BID) (ITEM L-125-5.1)
INSTALL NEW AIRFIELD GUIDANCE SIGN (SIZE 2) (TYP.) SEE DETAIL SHEET EL-05 (BASE BID) (ITEMS L-125-5.3A, L-125-5.3B, L-125-5.3C)
AIRFIELD WIND CONE
KEEP OUT NAV AID CRITICAL AREA
209

LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- RELOCATED AIRFIELD GUIDANCE SIGN (ITEM L-125-5.5)
- NEW AIRFIELD GUIDANCE SIGN (ITEMS L-125-5.3A, L-125-5.3B, L-125-5.3C)
- NEW UNLIT AIRFIELD GUIDANCE SIGN (ITEM L-125-5.2)
- INSTALL NEW L-824 CABLE IN EXISTING 2" CONDUIT (ITEM L-108-5.2)
- UE — INSTALL NEW L-824 CABLE IN NEW 2" CONDUIT (ITEMS L-108-5.2 AND L-110-5.1)
- NEW BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT (ITEM L-125-5.1)
- RELOCATED BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT (ITEM L-125-5.4)
- ELECTRICAL JUNCTION STRUCTURE 4' X 4' (ITEM L-115-5.1)
- INSTALL NEW CONCRETE ENCASED DUCT BANK (ITEMS L-110-5.2 AND L-110-5.3A)
- REINSTALL FIELD LIGHTNING ARRESTOR AND BASE (ITEM L-125-5.6)

NOTES:

1. CONTRACTOR TO LAYOUT PROPOSED LIGHTS AND SIGNS FOR ENGINEER REVIEW PRIOR TO INSTALLATION.
2. PRIOR TO WORK ON ANY ELECTRICAL CIRCUITS, THE CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE ELECTRICAL CIRCUIT. IF PART OF THE ELECTRICAL CIRCUIT LOCK-OUT/TAG-OUT IS REQUIRED TO POWER ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL DISCONNECT THE PORTION TO BE REMOVED AND RE-ENERGIZE THE PORTION TO REMAIN.
3. AIRFIELD GUIDANCE SIGNS 226, 230, 241, AND 242 SHALL BE LOCATED 30' FROM NEAREST PAVEMENT INTERSECTION
   - 3.1. ALL OTHER AIRFIELD GUIDANCE SIGNS SHALL BE LOCATED 20' FROM NEAREST PAVEMENT INTERSECTION
4. SEE SHEET EL-09 FOR EXACT LOCATION OF AIRFIELD GUIDANCE SIGNS, TAXIWAY EDGE LIGHTS, FIELD LIGHTING ARRESTORS. AND ELECTRICAL JUNCTION STRUCTURES.

0 40 80 120 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

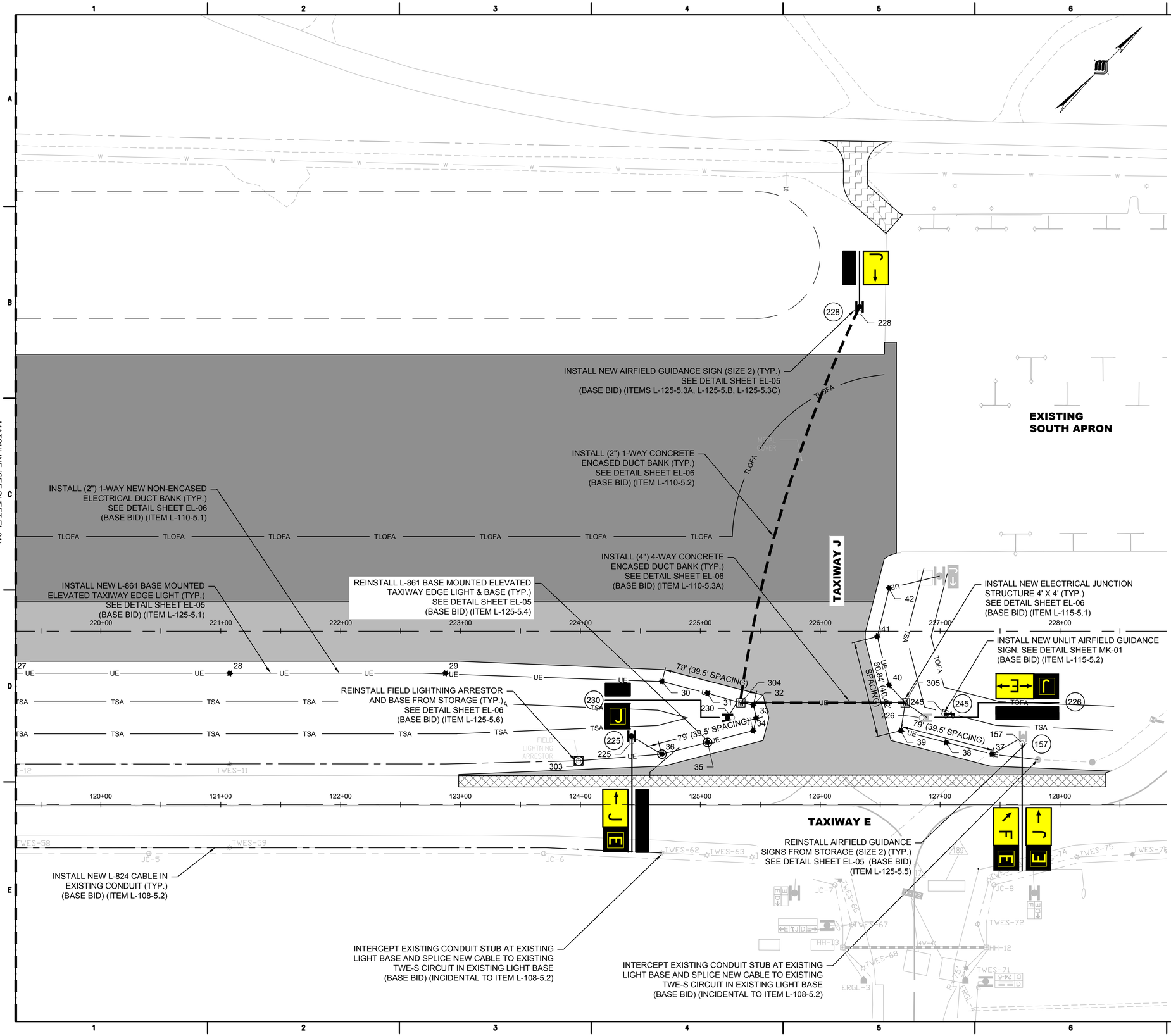
ELECTRICAL PLAN (SHEET 1 OF 2)

DRAWING NUMBER

EL-01

45 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-ELEC.DWG



LEGEND

TSA	TAXILANE SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
TLOFA	TAXILANE OBJECT FREE AREA
	RELOCATED AIRFIELD GUIDANCE SIGN (ITEM L-125-5.5)
	NEW AIRFIELD GUIDANCE SIGN (ITEMS L-125-5.3A, L-125-5.3B, L-125-5.3C)
	NEW UNLIT AIRFIELD GUIDANCE SIGN (ITEM L-125-5.2)
	INSTALL NEW L-824 CABLE IN EXISTING 2" CONDUIT (ITEM L-108-5.2)
UE	INSTALL NEW L-824 CABLE IN NEW 2" CONDUIT (ITEMS L-108-5.2 AND L-110-5.1)
	NEW BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT (ITEM L-125-5.1)
	RELOCATED BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT (ITEM L-125-5.4)
M	ELECTRICAL JUNCTION STRUCTURE 4' X 4' (ITEM L-115-5.1)
	INSTALL NEW CONCRETE ENCASED DUCT BANK (ITEMS L-110-5.2 AND L-110-5.3A)
	REINSTALL FIELD LIGHTNING ARRESTOR AND BASE (ITEM L-125-5.6)

NOTES:

1. CONTRACTOR TO LAYOUT PROPOSED LIGHTS AND SIGNS FOR ENGINEER REVIEW PRIOR TO INSTALLATION.
2. PRIOR TO WORK ON ANY ELECTRICAL CIRCUITS, THE CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE ELECTRICAL CIRCUIT. IF PART OF THE ELECTRICAL CIRCUIT LOCK-OUT/TAG-OUT IS REQUIRED TO POWER ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL DISCONNECT THE PORTION TO BE REMOVED AND RE-ENERGIZE THE PORTION TO REMAIN.
3. AIRFIELD GUIDANCE SIGNS 226, 230, 241, AND 242 SHALL BE LOCATED 30' FROM NEAREST PAVEMENT INTERSECTION
   - 3.1. ALL OTHER AIRFIELD GUIDANCE SIGNS SHALL BE LOCATED 20' FROM NEAREST PAVEMENT INTERSECTION
4. SEE SHEET EL-09 FOR EXACT LOCATION OF AIRFIELD GUIDANCE SIGNS, TAXIWAY EDGE LIGHTS, FIELD LIGHTING ARRESTORS. AND ELECTRICAL JUNCTION STRUCTURES.

0 40 80 120 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

ELECTRICAL PLAN (SHEET 2 OF 2)

DRAWING NUMBER

EL-02

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-ELEC.DWG

ELECTRICAL NOTES:

1. PROVIDE (4) OS2, 1GB, SINGLE MODE FIBER OPTIC CABLES (ITEM M-300-13) IN 4" UNDERGROUND CONDUIT #4 IN DUCTBANK FOR NEW POLE MOUNTED CAMERAS, AND HOMERUN BACK TO EXISTING DATA RACK IN TELECOMM ROOM #208 ON THE SECOND FLOOR OF THE ARFF BUILDING (ITEM M-300-15). PROVIDE (4) MEDIA CONVERTERS IN TELECOMM ROOM. (INCIDENTAL TO ITEMS M-600-1 & M-600-2)
2. PROVIDE (9) SETS OF ((2) #8 AWG CU, (1) #8 AWG CU) (ITEM M-300-11) IN 4" UNDERGROUND CONDUIT #2 IN DUCTBANK TO POWER NEW LIGHT POLE FIXTURES, HOMERUN TO NEW LIGHTING RELAY CABINET (ITEM M-300-3) IN ARFF BUILDING. REFER TO LIGHT POLE SCHEMATIC DETAIL ON SHEET EL-08.
3. PROVIDE POWER TO NOISE MONITORING DEVICE (NMU-2). PROVIDE NEW 20A/1P BREAKER IN EXISTING ELECTRICAL PANEL RP1 #2 TO REPLACE NEXT AVAILABLE SPACE (ITEM M-300-15). PROVIDE (2) #4 AWG CU, (1) #4 AWG CU GND (ITEM M-300-10) IN 4" UNDERGROUND CONDUIT #3 IN DUCTBANK AND HOMERUN TO NEW BREAKER IN RP1 #2 (ITEM M-300-15). PANEL RP1 #2 IS LOCATED IN ELECTRICAL ROOM #203 ON THE SECOND FLOOR OF THE ARFF BUILDING.
4. PROVIDE NEW ELECTRICAL/COMMUNICATION JUNCTION STRUCTURES (ITEM L-115-5.1), REFER TO DETAIL ON SHEET EL-06.
5. PROVIDE A 30' SQUARE, STRAIGHT, ALUMINUM POLE (ITEMS M-300-2 & M-300-2A) TO MOUNT CAMERA AND NOISE MONITORING DEVICE TO, REFER TO DETAILS ON SHEET EL-07.
   DESIGN BASE: GARDCO - SSA-CA-6-250-25-D1-DT3-WH
6. PROVIDE A 15' SQUARE, STRAIGHT, ALUMINUM POLE (ITEM M-300-1) TO MOUNT LIGHT FIXTURE TO, REFER TO DETAIL ON SHEET EL-07.
   DESIGN BASE: GARDCO - SSA-CA-5-125-15-D1-DT3-WH
7. PROVIDE NEW 200A MCB, NEMA 3R, 208/120V PANELBOARD (ITEM M-300-4), LPA, INSTALLED ON H-FRAME STRUCTURE, REFER TO ELECTRIC PEDESTAL DETAIL ON SHEET EL-08.
8. PROVIDE NEW CONNECTION FROM UTILITY TRANSFORMER TO POWER NEW ELECTRICAL PANEL MADP (ITEM M-300-14). REFER TO ELECTRICAL FEEDER SCHEDULE ONE-LINE DIAGRAM ON SHEET EL-08.
9. PROVIDE NEW 800A MCB, NEMA 3R, 480/277V PANELBOARD (M-300-5), MADP, INSTALLED ON H-FRAME STRUCTURE, REFER TO ELECTRIC PEDESTAL DETAIL ON SHEET EL-08.
10. PROVIDE NEW POLE MOUNTED NOISE MONITORING DEVICE (NM-2) (ITEM M-500-1), COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION. PROVIDE CAT 6 CABLE (ITEM M-300-8) CONNECTION TO NEW NOISE MONITORING DEVICE, IN 4" UNDERGROUND CONDUIT #4 IN DUCTBANK TO HOMERUN TO EXISTING DATA RACK IN TELECOMM ROOM #208 ON THE SECOND FLOOR OF THE ARF BUILDING (ITEM M-300-15).
11. PROVIDE NEW POLE MOUNTED MEDIA CONVERTER AND NETWORK SWITCH WITH NEMA 4X, IP66 RATED ENCLOSURE (ITEM M-500-1) FOR CAM-1, CAM-2, CAM-3, & CAM-4.
    DESIGN BASE: ALTRONIX NETWAY4EWPN.
12. PROVIDE NEW POLE MOUNTED NOISE MONITORING DEVICE (NM-1)(ITEM M-500-1), COORDINATE FINAL LOCATION, WITHIN 100' OF PANEL LPA, WITH OWNER PRIOR TO INSTALLATION . PROVIDE (1) OS2, 1GB, SINGLE MODE FIBER OPTIC CABLE (ITEM M-300-13) IN 4" UNDERGROUND CONDUIT #4 IN DUCTBANK AND HOMERUN TO EXISTING DATA RACK IN TELECOMM ROOM #208 ON THE SECOND FLOOR OF THE ARF BUILDING (ITEM M-300-15). PROVIDE A MEDIA CONVERTER AT EACH END. PROVIDE A NEMA 4X,IP66 RATED ENCLOSURE FOR MEDIA CONVERTER AT EXTERIOR LOCATION.
13. PROVIDE POWER TO NEW NOISE MONITORING DEVICE (NM-1). PROVIDE NEW 20A/1P BREAKER IN PANEL "LPA" (INCIDENTAL TO ITEM M-300-4) AND WIRE WITH (2) #12 AWG CU, (1) #12 AWG CU GND (ITEM M-300-12) IN 2" UNDERGROUND SCHEDULE 40 PVC CONDUIT. (ITEM L-110-5.1)
14. PROVIDE NEW 50 KVA DRY TYPE TRANSFORMER, T-A. (M-300-6)
15. PROVIDE POWER TO NEW CAMERA NETWORK SWITCHES FOR CAM-1 & CAM-3. PROVIDE NEW 20A/1P CIRCUIT BREAKER IN PANEL LPA (INCIDENTAL TO ITEM M-300-4), WIRE WITH (2) #1 AWG CU, (1) #1 AWG CU GND (ITEM M-300-9) IN 2" UNDERGROUND SCHEDULE 40 PVC CONDUIT (ITEM L-110-5.1) TO CAM-1 & CAM 3.
16. PROVIDE POWER TO NEW CAMERA NETWORK SWITCH FOR CAM-2. PROVIDE NEW 20A/1P CIRCUIT BREAKER IN PANEL LPA (INCIDENTAL TO ITEM M-300-4), WIRE WITH (2) #12 AWG CU, (1) #12 AWG CU GND (ITEM M-300-12) IN 2" UNDERGROUND SCHEDULE 40 PVC CONDUIT (ITEM L-110-5.1) TO CAM-2.
17. PROVIDE POWER TO NEW CAMERA NETWORK SWITCH FOR CAM-4. PROVIDE NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL RP1 #2 (ITEM M-300-15), IN NEXT AVAILABLE SPACE, WIRE WITH (2) #1/0 AWG CU, (1) #1/0 AWG CU GND (ITEM M-300-9) IN 4" UNDERGROUND CONDUIT #3 IN DUCTBANK TO CAM-4.
18. FURNISH NEW CAMERA (CAM-4) AND INSTALL ON AT THE TOP OF EXISTING LIGHT POLE.
19. FURNISH NEW CAMERAS (CAM-2 & CAM-3) AND INSTALL ON 30' ALUMINUM POLE WITH LP-5 & LP-1.
20. FURNISH NEW CAMERA (CAM-1) AND INSTALL ON 30' ALUMINUM POLE.
21. PROVIDE UTILITY APPROVED 15KV RATED CONDUCTORS (ITEM M-300-14) IN 4" UNDERGROUND CONDUIT #1 IN DUCTBANK.
22. THE NEW ELECTRICAL DUCT BANK TRUNK LINE SHALL BE (4") 8-WAY CONCRETE ENCASED DUCT BANK. DUCT BANK TO DEDICATED STRUCTURES SHALL BE (4") 4-WAY CONCRETE DUCT BANK. (BASE BID) (ITEMS L-110-5.3A, L-110-5.3B)

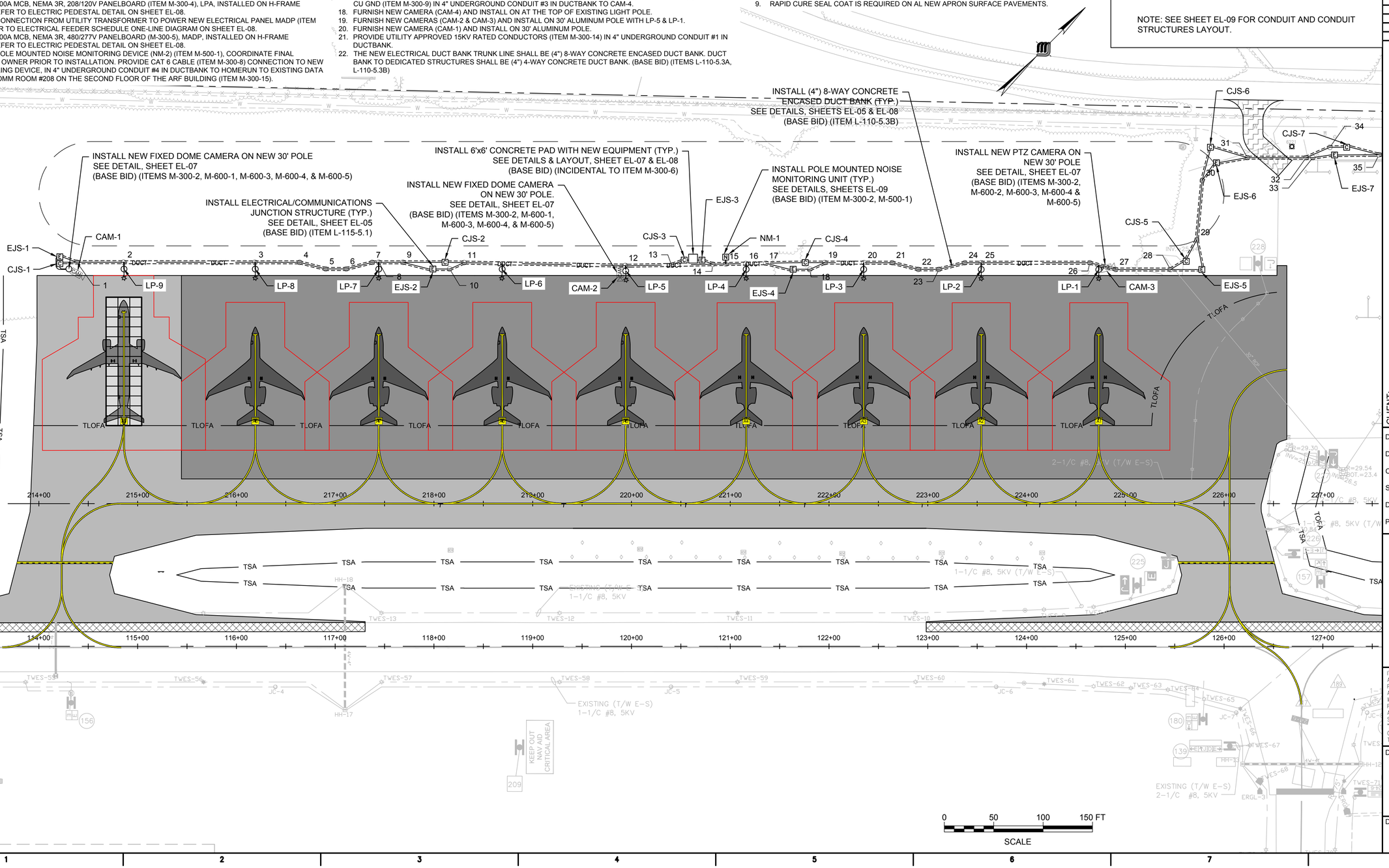
GENERAL NOTES:

1. CONTRACTOR SHALL BE REQUIRED TO PROVIDE STEEL ROADWAY PLATES AND COVER THE TRENCH AT THE END OF EVERY SHIFT. NO OPEN TRENCHES ARE ALLOWED WHEN THE CONTRACTOR IS NOT WORKING.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY EXCAVATION BEGINS FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO PAYING FOR A PRIVATE UTILITY LOCATION SERVICE. EXISTING UTILITIES, AS SHOWN ON THE PLANS, REFLECT FIELD OBSERVATIONS AND AVAILABLE AS BUILT DRAWINGS AND SHOULD BE CONSIDERED SCHEMATIC BY NATURE AND NOT EQUIVALENT TO THE DETAIL OF SURVEY INFORMATION.
3. FIBER OPTIC CABLE SHALL HAVE ENOUGH LENGTH TO LOOP EACH EHH TWICE AND AN ADDITIONAL 50 FT AT THE BEGINNING AND END OF THE DUCT BANK.
4. ALL COMMUNICATION AND ELECTRICAL MANHOLES SHALL BE RATED AS EXTRA HEAVY DUTY" WITH THE EXCEPTION OF CMH-6, CMH-8, EMH-7, AND EMH-9 WHICH SHALL BE RATED AS "H-20" LOADING.
5. SAWCUT EXISTING PAVEMENT PRIOR TO REMOVAL.
6. RECONSTRUCT AS SHOWN, CONTRACTOR CAN USE FLOWABLE FILL AS AN OPTIONAL BASE MATERIAL OR BACKFILL.
7. RECONSTRUCT SURFACES USING MASSDOT SURFACE COURSE.
8. IF MASSDOT SURFACE COURSE IS NOT AVAILABLE, FILL TO GRADE USING FLOWABLE FILL. CONTRACTOR SHALL REPLACE FLOWABLE FILL WITH MASSDOT PAVEMENT UPON AVAILABILITY AT NO ADDITIONAL COST.
9. RAPID CURE SEAL COAT IS REQUIRED ON AL NEW APRON SURFACE PAVEMENTS.

LEGEND

- EJS-1 — E — ELECTRICAL JUNCTION STRUCTURE (ITEM L-115-5.1)
- CJS-1 — C — COMMUNICATIONS JUNCTION STRUCTURE (ITEM L-115-5.1)
- NM-1 — N — NOISE MONITORING UNIT (BASE BID) (ITEM M-500-1)
- CAM-1 — CAM — FIXED DOME IP CAMERA
- CAM-1 — PTZ — PTZ IP CAMERA
- LP-1 — SITE LIGHTING POLE AND ELECTRICAL HANDHOLE
- UNDERGROUND CONDUIT
- SF — SILT FENCE

NOTE: SEE SHEET EL-09 FOR CONDUIT AND CONDUIT STRUCTURES LAYOUT.



McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=50'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

APRON LIGHTING AND SECURITY PLAN (SHEET 1 OF 2)

DRAWING NUMBER

EL-03

47 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWG\DRAWINGS\SHEET FILES\18706.07-LIGHT.DWG

ELECTRICAL NOTES:

1. PROVIDE (4) OS2, 1GB, SINGLE MODE FIBER OPTIC CABLES (ITEM M-300-13) IN 4" UNDERGROUND CONDUIT #4 IN DUCTBANK FOR NEW POLE MOUNTED CAMERAS, AND HOMERUN BACK TO EXISTING DATA RACK IN TELECOMM ROOM #208 ON THE SECOND FLOOR OF THE ARFF BUILDING (ITEM M-300-15). PROVIDE (4) MEDIA CONVERTERS IN TELECOMM ROOM. (INCIDENTAL TO ITEMS M-600-1 & M-600-2)
2. PROVIDE (9) SETS OF ((2) #8 AWG CU, (1) #8 AWG CU) (ITEM M-300-11) IN 4" UNDERGROUND CONDUIT #2 IN DUCTBANK TO POWER NEW LIGHT POLE FIXTURES, HOMERUN TO NEW LIGHTING RELAY CABINET (ITEM M-300-3) IN ARFF BUILDING. REFER TO LIGHT POLE SCHEMATIC DETAIL ON SHEET EL-08.
3. PROVIDE POWER TO NOISE MONITORING DEVICE (NMU-2). PROVIDE NEW 20A/1P BREAKER IN EXISTING ELECTRICAL PANEL RP1 #2 TO REPLACE NEXT AVAILABLE SPACE (ITEM M-300-15). PROVIDE (2) #4 AWG CU, (1) #4 AWG CU GND (ITEM M-300-10) IN 4" UNDERGROUND CONDUIT #3 IN DUCTBANK AND HOMERUN TO NEW BREAKER IN RP1 #2 (ITEM M-300-15). PANEL RP1 #2 IS LOCATED IN ELECTRICAL ROOM #203 ON THE SECOND FLOOR OF THE ARFF BUILDING.
4. PROVIDE NEW ELECTRICAL/COMMUNICATION JUNCTION STRUCTURES (ITEM L-115-5.1), REFER TO DETAIL ON SHEET EL-06.
5. PROVIDE A 30' SQUARE, STRAIGHT, ALUMINUM POLE (ITEMS M-300-2 & M-300-2A) TO MOUNT CAMERA AND NOISE MONITORING DEVICE TO, REFER TO DETAILS ON SHEET EL-07.
   DESIGN BASE: GARDCO - SSA-CA-6-250-25-D1-DT3-WH
6. PROVIDE A 15' SQUARE, STRAIGHT, ALUMINUM POLE (ITEM M-300-1) TO MOUNT LIGHT FIXTURE TO, REFER TO DETAIL ON SHEET EL-07.
   DESIGN BASE: GARDCO - SSA-CA-5-125-15-D1-DT3-WH
7. PROVIDE NEW 200A MCB, NEMA 3R, 208/120V PANELBOARD (ITEM M-300-4), LPA, INSTALLED ON H-FRAME STRUCTURE, REFER TO ELECTRIC PEDESTAL DETAIL ON SHEET EL-08.
8. PROVIDE NEW CONNECTION FROM UTILITY TRANSFORMER TO POWER NEW ELECTRICAL PANEL MADP (ITEM M-300-14). REFER TO ELECTRICAL FEEDER SCHEDULE ONE-LINE DIAGRAM ON SHEET EL-08.
9. PROVIDE NEW 800A MCB, NEMA 3R, 480/277V PANELBOARD (M-300-5), MADP, INSTALLED ON H-FRAME STRUCTURE, REFER TO ELECTRIC PEDESTAL DETAIL ON SHEET EL-08.
10. PROVIDE NEW POLE MOUNTED NOISE MONITORING DEVICE (NM-2) (ITEM M-500-1), COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION. PROVIDE CAT 6 CABLE (ITEM M-300-8) CONNECTION TO NEW NOISE MONITORING DEVICE, IN 4" UNDERGROUND CONDUIT #4 IN DUCTBANK TO HOMERUN TO EXISTING DATA RACK IN TELECOMM ROOM #208 ON THE SECOND FLOOR OF THE ARF BUILDING (ITEM M-300-15).
11. PROVIDE NEW POLE MOUNTED MEDIA CONVERTER AND NETWORK SWITCH WITH NEMA 4X, IP66 RATED ENCLOSURE (ITEM M-500-1) FOR CAM-1, CAM-2, CAM-3, & CAM-4.
    DESIGN BASE: ALTRONIX NETWAY4EWPN.
12. PROVIDE NEW POLE MOUNTED NOISE MONITORING DEVICE (NM-1)(ITEM M-500-1), COORDINATE FINAL LOCATION, WITHIN 100' OF PANEL LPA, WITH OWNER PRIOR TO INSTALLATION . PROVIDE (1) OS2, 1GB, SINGLE MODE FIBER OPTIC CABLE (ITEM M-300-13) IN 4" UNDERGROUND CONDUIT #4 IN DUCTBANK AND HOMERUN TO EXISTING DATA RACK IN TELECOMM ROOM #208 ON THE SECOND FLOOR OF THE ARF BUILDING (ITEM M-300-15). PROVIDE A MEDIA CONVERTER AT EACH END. PROVIDE A NEMA 4X,IP66 RATED ENCLOSURE FOR MEDIA CONVERTER AT EXTERIOR LOCATION.
13. PROVIDE POWER TO NEW NOISE MONITORING DEVICE (NM-1). PROVIDE NEW 20A/1P BREAKER IN PANEL "LPA" (INCIDENTAL TO ITEM M-300-4) AND WIRE WITH (2) #12 AWG CU, (1) #12 AWG CU GND (ITEM M-300-12) IN 2" UNDERGROUND SCHEDULE 40 PVC CONDUIT (ITEM L-110-5.1).
14. PROVIDE NEW 50 KVA DRY TYPE TRANSFORMER, T-A. (M-300-6)
15. PROVIDE POWER TO NEW CAMERA NETWORK SWITCHES FOR CAM-1 & CAM-3. PROVIDE NEW 20A/1P CIRCUIT BREAKER IN PANEL LPA (INCIDENTAL TO ITEM M-300-4), WIRE WITH (2) #1 AWG CU, (1) #1 AWG CU GND (ITEM M-300-9) IN 2" UNDERGROUND SCHEDULE 40 PVC CONDUIT (ITEM L-110-5.1) TO CAM-1 & CAM 3.
16. PROVIDE POWER TO NEW CAMERA NETWORK SWITCH FOR CAM-2. PROVIDE NEW 20A/1P CIRCUIT BREAKER IN PANEL LPA (INCIDENTAL TO ITEM M-300-4), WIRE WITH (2) #12 AWG CU, (1) #12 AWG CU GND (ITEM M-300-12) IN 2" UNDERGROUND SCHEDULE 40 PVC CONDUIT (ITEM L-110-5.1) TO CAM-2.
17. PROVIDE POWER TO NEW CAMERA NETWORK SWITCH FOR CAM-4. PROVIDE NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL RP1 #2 (ITEM M-300-15), IN NEXT AVAILABLE SPACE, WIRE WITH (2) #1/0 AWG CU, (1) #1/0 AWG CU GND (ITEM M-300-9) IN 4" UNDERGROUND CONDUIT #3 IN DUCTBANK TO CAM-4.
18. FURNISH NEW CAMERA (CAM-4) AND INSTALL ON AT THE TOP OF EXISTING LIGHT POLE.
19. FURNISH NEW CAMERAS (CAM-2 & CAM-3) AND INSTALL ON 30' ALUMINUM POLE WITH LP-5 & LP-1.
20. FURNISH NEW CAMERA (CAM-1) AND INSTALL ON 30' ALUMINUM POLE.
21. PROVIDE UTILITY APPROVED 15KV RATED CONDUCTORS (ITEM M-300-14) IN 4" UNDERGROUND CONDUIT #1 IN DUCTBANK.
22. THE NEW ELECTRICAL DUCT BANK TRUNK LINE SHALL BE (4") 8-WAY CONCRETE ENCASED DUCT BANK. DUCT BANK TO DEDICATED STRUCTURES SHALL BE (4") 4-WAY CONCRETE NCASED DUCT BANK. (BASE BID) (ITEMS L-110-5.3A, L-110-5.3B)

GENERAL NOTES:

1. CONTRACTOR SHALL BE REQUIRED TO PROVIDE STEEL ROADWAY PLATES AND COVER THE TRENCH AT THE END OF EVERY SHIFT. NO OPEN TRENCHES ARE ALLOWED WHEN THE CONTRACTOR IS NOT WORKING.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY EXCAVATION BEGINS FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO PAYING FOR A PRIVATE UTILITY LOCATION SERVICE. EXISTING UTILITIES, AS SHOWN ON THE PLANS, REFLECT FIELD OBSERVATIONS AND AVAILABLE AS BUILT DRAWINGS AND SHOULD BE CONSIDERED SCHEMATIC BY NATURE AND NOT EQUIVALENT TO THE DETAIL OF SURVEY INFORMATION.
3. FIBER OPTIC CABLE SHALL HAVE ENOUGH LENGTH TO LOOP EACH EHH TWICE AND AN ADDITIONAL 50 FT AT THE BEGINNING AND END OF THE DUCT BANK.
4. ALL COMMUNICATION AND ELECTRICAL MANHOLES SHALL BE RATED AS EXTRA HEAVY DUTY" WITH THE EXCEPTION OF CMH-6, CMH-8, EMH-7, AND EMH-9 WHICH SHALL BE RATED AS "H-20" LOADING.
5. SAWCUT EXISTING PAVEMENT PRIOR TO REMOVAL.
6. RECONSTRUCT AS SHOWN, CONTRACTOR CAN USE FLOWABLE FILL AS AN OPTIONAL BASE MATERIAL OR BACKFILL.
7. RECONSTRUCT SURFACES USING MASSDOT SURFACE COURSE.
8. IF MASSDOT SURFACE COURSE IS NOT AVAILABLE, FILL TO GRADE USING FLOWABLE FILL. CONTRACTOR SHALL REPLACE FLOWABLE FILL WITH MASSDOT PAVEMENT UPON AVAILABILITY AT NO ADDITIONAL COST.
9. RAPID CURE SEAL COAT IS REQUIRED ON AL NEW APRON SURFACE PAVEMENTS.

LEGEND

- EJS-1 — ELECTRICAL JUNCTION STRUCTURE (ITEM L-115-5.1)
- CJS-1 — COMMUNICATIONS JUNCTION STRUCTURE (ITEM L-115-5.1)
- NM-1 — COMMUNICATIONS JUNCTION STRUCTURE (ITEM L-115-5.1)
- CAM-1 — FIXED DOME IP CAMERA
- CAM-1 — PTZ IP CAMERA
- LP-1 — SITE LIGHTING POLE AND ELECTRICAL HANDHOLE
- UNDERGROUND CONDUIT
- SILT FENCE

NOTE: SEE SHEET EL-09 FOR CONDUIT AND CONDUIT STRUCTURES LAYOUT.

TIE PROPOSED DUCT BANK INTO EXISTING TRANSFORMER PAD (INCIDENTAL TO ITEL L-110-5.3B) & TIE NEW UTILITY SERVICE INTO EXISTING TRANSFORMER (ITEM M-300-14)

TIE NEW (4") 4-WAY CONCRETE ENCASED DUCT BANK INTO EXISTING TRANSFORMER (BASE BID) (INCIDENTAL TO ITEM L-110-5.3A)

TIE NEW ELECTRICAL & COMMUNICATIONS DUCT BANKS INTO EXISTING ARFF BUILDING (BASE BID) (INCIDENTAL TO ITEM L-110-5.3B)

JUNCTION STRUCTURE (TYP.) SEE DETAIL, SHEET EL-05 (BASE BID) (ITEM L-115-5.1)

INSTALL SILT FENCE 8' OUTSIDE EDGE OF PROPOSED CONDUIT TO EXTENTS SHOWN. SEE DETAIL, SHEET DE-03 (ITEM C-102-5.1D)

INSTALL NEW FIXED DOME CAMERA ON EXISTING LIGHT POLE. SEE DETAIL, SHEET EL-07 (BASE BID) (ITEMS M-600-1, M-600-3, M-600-4 & M-600-5)

INSTALL POLE MOUNTED NOISE MONITORING UNIT (TYP.) SEE DETAIL ON SHEET EL-07 (BASE BID) (ITEM M-300-2, M-500-1)

INSTALL (4") 4-WAY CONCRETE ENCASED DUCT BANK (TYP.) SEE DETAIL ON SHEET EL-06 (BASE BID) (ITEM L-110-5.3A

INSTALL (4") 8-WAY CONCRETE ENCASED DUCT BANK (TYP.) SEE DETAIL ON SHEET EL-06 (BASE BID) (ITEM L-110-5.3B)

INSTALL(4") 8-WAY CONCRETE ENCASED DUCT BANK (TYP.) SEE DETAIL ON SHEET EL-06 (BASE BID) (ITEM L-110-5.3B)

WHEN DUCT BANK IS INSTALLED BENEATH EXISTING PAVEMENT, CONTRACTOR SHALL TRENCH EXISTING PAVEMENT AND RESTORE TO EXISTING OR BETTER CONDITION. ALL TRENCHING, EXCAVATION, AND RESTORATION OF BASE MATERIAL AND ASPHALT IS INCIDENTAL TO ITEM L-110-5.3B. SEE DETAIL, SHEET EL-06 FOR ADDITIONAL INFORMATION (BASE BID) (INCIDENTAL TO ITEM L-110-5.3B)

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=50'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

APRON LIGHTING AND SECURITY PLAN (SHEET 2 OF 2)

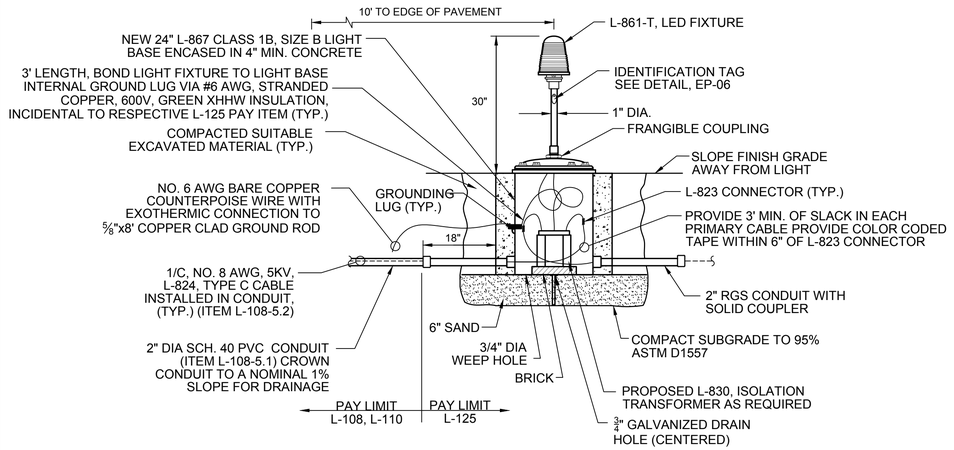
DRAWING NUMBER

EL-04

48 OF 72

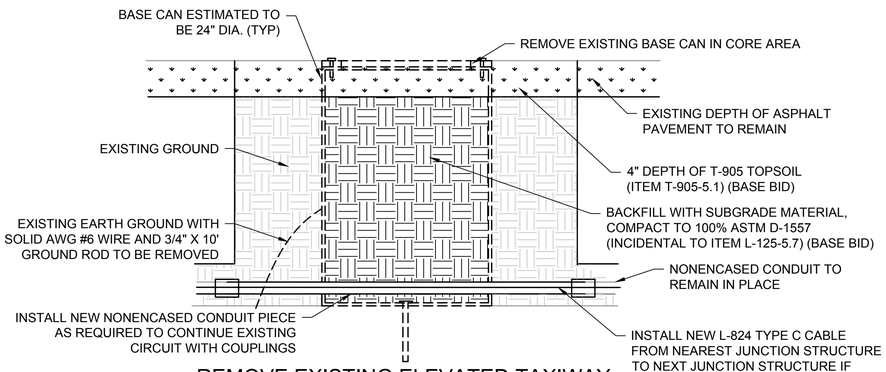
0 50 100 150 FT
SCALE

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07 LIGHT.DWG


10' TO EDGE OF PAVEMENT
NEW 24" L-867 CLASS 1B, SIZE B LIGHT BASE ENCASED IN 4" MIN. CONCRETE
3' LENGTH, BOND LIGHT FIXTURE TO LIGHT BASE INTERNAL GROUND LUG VIA #6 AWG, STRANDED COPPER, 600V, GREEN XHHW INSULATION, INCIDENTAL TO RESPECTIVE L-125 PAY ITEM (TYP.)
COMPACTED SUITABLE EXCAVATED MATERIAL (TYP.)
NO. 6 AWG BARE COPPER COUNTERPOISE WIRE WITH EXOTHERMIC CONNECTION TO 5/8"x8' COPPER CLAD GROUND ROD
1/C, NO. 8 AWG, 5KV, L-824, TYPE C CABLE INSTALLED IN CONDUIT, (TYP.) (ITEM L-108-5.2)
2" DIA SCH. 40 PVC CONDUIT (ITEM L-108-5.1) CROWN CONDUIT TO A NOMINAL 1% SLOPE FOR DRAINAGE
PAY LIMIT L-108, L-110
PAY LIMIT L-125
L-861-T, LED FIXTURE
IDENTIFICATION TAG SEE DETAIL, EP-06
30"
1" DIA.
FRANGIBLE COUPLING
SLOPE FINISH GRADE AWAY FROM LIGHT
GROUNDING LUG (TYP.)
L-823 CONNECTOR (TYP.)
PROVIDE 3' MIN. OF SLACK IN EACH PRIMARY CABLE PROVIDE COLOR CODED TAPE WITHIN 6" OF L-823 CONNECTOR
18"
2" RGS CONDUIT WITH SOLID COUPLER
6" SAND
3/4" DIA WEEP HOLE
BRICK
COMPACT SUBGRADE TO 95% ASTM D1557
PROPOSED L-830, ISOLATION TRANSFORMER AS REQUIRED
3/4" GALVANIZED DRAIN HOLE (CENTERED)

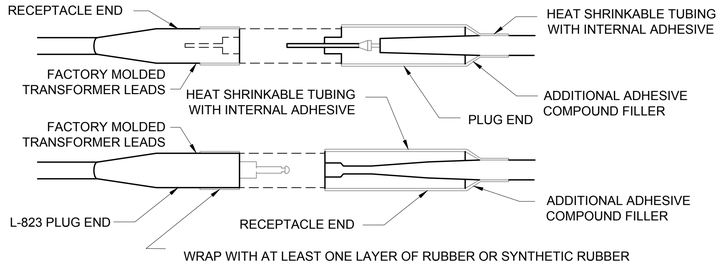
BASE MOUNTED ELEVATED EDGE LIGHT IN TURF DETAIL

NOT TO SCALE
(ITEMS L-125-5.1 AND L-125-5.4)


BASE CAN ESTIMATED TO BE 24" DIA. (TYP)
REMOVE EXISTING BASE CAN IN CORE AREA
EXISTING DEPTH OF ASPHALT PAVEMENT TO REMAIN
EXISTING GROUND
4" DEPTH OF T-905 TOPSOIL (ITEM T-905-5.1) (BASE BID)
EXISTING EARTH GROUND WITH SOLID AWG #6 WIRE AND 3/4" X 10' GROUND ROD TO BE REMOVED
BACKFILL WITH SUBGRADE MATERIAL, COMPACT TO 100% ASTM D-1557 (INCIDENTAL TO ITEM L-125-5.7) (BASE BID)
NONENCASED CONDUIT TO REMAIN IN PLACE
INSTALL NEW NONENCASED CONDUIT PIECE AS REQUIRED TO CONTINUE EXISTING CIRCUIT WITH COUPLINGS
INSTALL NEW L-824 TYPE C CABLE FROM NEAREST JUNCTION STRUCTURE TO NEXT JUNCTION STRUCTURE IF REQUIRED TO COMPLETE CIRCUIT

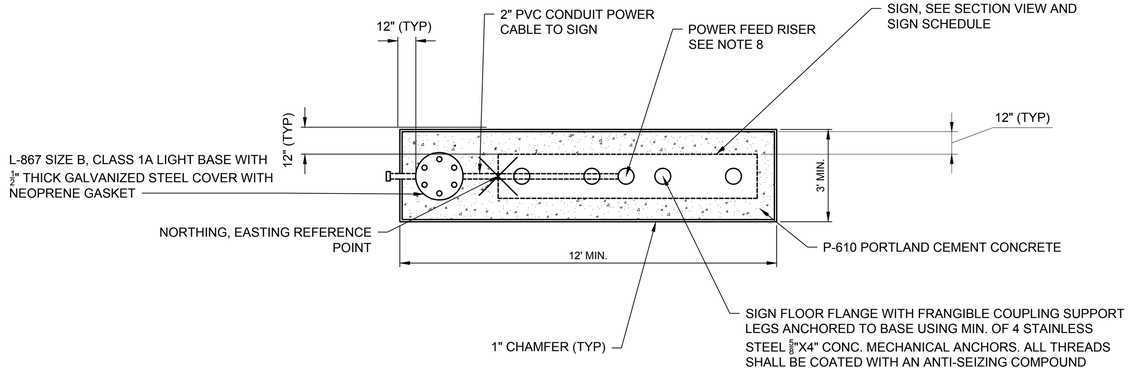
REMOVE EXISTING ELEVATED TAXIWAY EDGE LIGHT AND BASE IN TURF

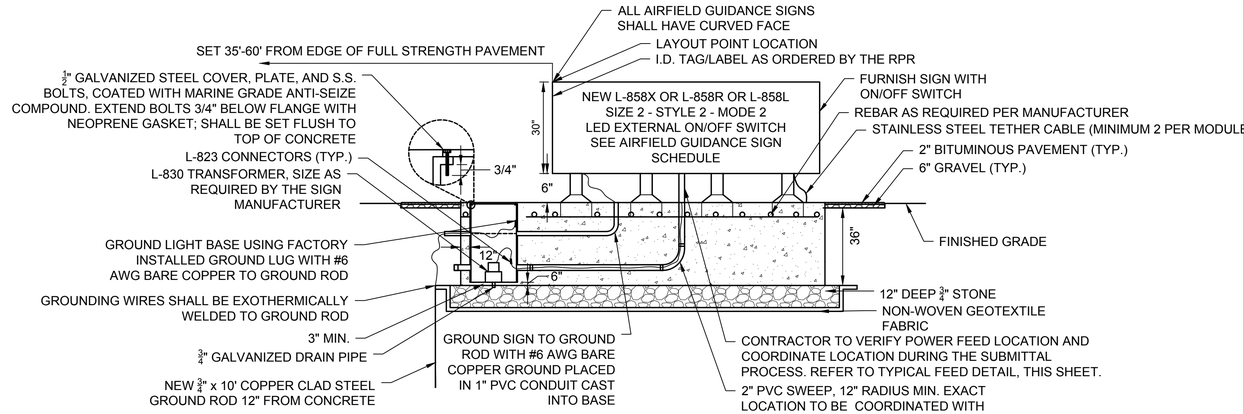
NOT TO SCALE
(ITEM L-125-5.7)


RECEPTACLE END
HEAT SHRINKABLE TUBING WITH INTERNAL ADHESIVE
FACTORY MOLDED TRANSFORMER LEADS
HEAT SHRINKABLE TUBING WITH INTERNAL ADHESIVE
ADDITIONAL ADHESIVE COMPOUND FILLER
PLUG END
FACTORY MOLDED TRANSFORMER LEADS
L-823 PLUG END
RECEPTACLE END
ADDITIONAL ADHESIVE COMPOUND FILLER
WRAP WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.

L-823 CONNECTIONS

NOT TO SCALE
(INCIDENTAL TO ITEM L-108-5.2)


12" (TYP)
2" PVC CONDUIT POWER CABLE TO SIGN
POWER FEED RISER SEE NOTE 8
SIGN, SEE SECTION VIEW AND SIGN SCHEDULE
12" (TYP)
L-867 SIZE B, CLASS 1A LIGHT BASE WITH 3/4" THICK GALVANIZED STEEL COVER WITH NEOPRENE GASKET
12" (TYP)
3' MIN.
NORTHING, EASTING REFERENCE POINT
12' MIN.
P-610 PORTLAND CEMENT CONCRETE
1" CHAMFER (TYP)
SIGN FLOOR FLANGE WITH FRANGIBLE COUPLING SUPPORT LEGS ANCHORED TO BASE USING MIN. OF 4 STAINLESS STEEL 5/8"X4" CONC. MECHANICAL ANCHORS. ALL THREADS SHALL BE COATED WITH AN ANTI-SEIZING COMPOUND


ALL AIRFIELD GUIDANCE SIGNS SHALL HAVE CURVED FACE
LAYOUT POINT LOCATION
I.D. TAG/LABEL AS ORDERED BY THE RPR
SET 35'-60' FROM EDGE OF FULL STRENGTH PAVEMENT
1/2" GALVANIZED STEEL COVER, PLATE, AND S.S. BOLTS, COATED WITH MARINE GRADE ANTI-SEIZE COMPOUND. EXTEND BOLTS 3/4" BELOW FLANGE WITH NEOPRENE GASKET; SHALL BE SET FLUSH TO TOP OF CONCRETE
NEW L-858X OR L-858R OR L-858L SIZE 2 - STYLE 2 - MODE 2 LED EXTERNAL ON/OFF SWITCH SEE AIRFIELD GUIDANCE SIGN SCHEDULE
FURNISH SIGN WITH ON/OFF SWITCH
REBAR AS REQUIRED PER MANUFACTURER
STAINLESS STEEL TETHER CABLE (MINIMUM 2 PER MODULE)
2" BITUMINOUS PAVEMENT (TYP.)
6" GRAVEL (TYP.)
L-823 CONNECTORS (TYP.)
L-830 TRANSFORMER, SIZE AS REQUIRED BY THE SIGN MANUFACTURER
30"
3/4"
6"
12"
6"
36"
FINISHED GRADE
GROUND LIGHT BASE USING FACTORY INSTALLED GROUND LUG WITH #6 AWG BARE COPPER TO GROUND ROD
GROUNDING WIRES SHALL BE EXOTHERMICALLY WELDED TO GROUND ROD
3" MIN.
3/4" GALVANIZED DRAIN PIPE
NEW 3/4" x 10' COPPER CLAD STEEL GROUND ROD 12" FROM CONCRETE
GROUND SIGN TO GROUND ROD WITH #6 AWG BARE COPPER GROUND PLACED IN 1" PVC CONDUIT CAST INTO BASE
12" DEEP 3/4" STONE
NON-WOVEN GEOTEXTILE FABRIC
CONTRACTOR TO VERIFY POWER FEED LOCATION AND COORDINATE LOCATION DURING THE SUBMITTAL PROCESS. REFER TO TYPICAL FEED DETAIL, THIS SHEET.
2" PVC SWEEP, 12" RADIUS MIN. EXACT LOCATION TO BE COORDINATED WITH SIGN MANUFACTURER

INSTALL NEW AIRFIELD GUIDANCE SIGN NOTES:

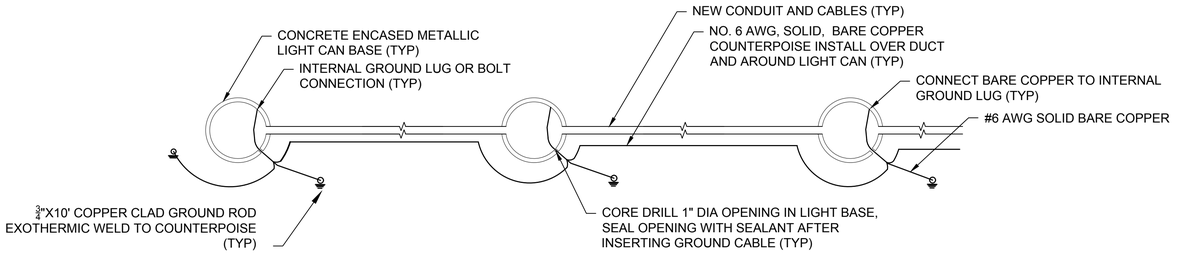
1. GROUNDWIRE FROM LIGHT BASE TO GROUND ROD AND FROM SIGN TO GROUND ROD SHALL BE #6 AWG, BARE COPPER. CONNECT GROUND WIRES TO GROUND ROD WITH EXOTHERMIC WELD .
2. SIGNS AND SIGN BASES SHALL BE SET LEVEL AND TRUE, ADJUST EXISTING GRADE SURROUNDING SIGN BASE AS REQUIRED 3% MAXIMUM GRADE.
3. FURNISH SIGN WITH L-830 ISOLATION TRANSFORMER, SIZE AS REQUIRED BY SIGN MANUFACTURER.
4. THE NUMBER OF MODULES SHOWN ON THE SIGN SCHEDULE WILL BE THE NUMBER OF MODULES PAID FOR REGARDLESS OF THE NUMBER OF MODULES REQUIRED BY THE MANUFACTURER.
5. PROVIDE HEAT SHRINK ON LINE SIDE OF PRIMARY CONNECTOR KITS ONLY. SECONDARY L-823 CONNECTIONS TO BE TAPED ONLY.
6. SIGNS SHALL BE LED WITH AN EXTERNAL ON OFF SWITCH
7. CONTRACTOR SHALL COORDINATE SIGN BASE LAYOUT FOR THE ELECTRICAL FEED AND SIGN SIZE WITH THE SIGN MANUFACTURER DURING THE SUBMITTAL PROCESS. SIGN BASE LAYOUT SHALL BE APPROVED PRIOR TO FABRICATION OF THE SIGN FOUNDATION.

RELOCATE EXISTING AIRFIELD GUIDANCE SIGN NOTES:

1. REMOVE EXISTING CONDUIT AND CABLE CONNECTING TO EXISTING SIGN.
2. RELOCATE SIGN AND FOUNDATION TO LOCATION SHOWN ON PLANS.
3. INSTALL NEW CONDUIT AND PULL NEW CABLE TO CONNECT RELOCATED SIGN TO CIRCUIT.
4. INSTALL NEW 3/4" X 10' COPPER CLAD GROUND ROD.
5. GROUNDWIRE FROM LIGHT BASE TO GROUND ROD AND FROM SIGN TO GROUND ROD SHALL BE #6 AWG, BARE COPPER. CONNECT GROUND WIRES TO GROUND ROD WITH EXOTHERMIC WELD .
6. SIGNS AND SIGN BASES SHALL BE SET LEVEL AND TRUE, ADJUST EXISTING GRADE SURROUNDING SIGN BASE AS REQUIRED 3% MAXIMUM GRADE.
7. INSTALL NEW POWER FEED WITH NEW L-823 CONNECTION FROM EXISTING TRANSFORMER IN BASE CAN TO SIGN.
8. PROVIDE HEAT SHRINK ON LINE SIDE OF PRIMARY CONNECTOR KITS ONLY. SECONDARY L-823 CONNECTIONS TO BE TAPED ONLY.
9. CONTRACTOR HAS OPTION OF REMOVING AND REUSING THE

NEW OR RELOCATED AIRFIELD SIGN DETAIL

NOT TO SCALE
(ITEM L-125-5.3A, L-125-5.3B, L-125-5.3C, & L-125-5.5)


NEW CONDUIT AND CABLES (TYP)
CONCRETE ENCASED METALLIC LIGHT CAN BASE (TYP)
NO. 6 AWG, SOLID, BARE COPPER COUNTERPOISE INSTALL OVER DUCT AND AROUND LIGHT CAN (TYP)
INTERNAL GROUND LUG OR BOLT CONNECTION (TYP)
CONNECT BARE COPPER TO INTERNAL GROUND LUG (TYP)
#6 AWG SOLID BARE COPPER
3/4"X10' COPPER CLAD GROUND ROD EXOTHERMIC WELD TO COUNTERPOISE (TYP)
CORE DRILL 1" DIA OPENING IN LIGHT BASE, SEAL OPENING WITH SEALANT AFTER INSERTING GROUND CABLE (TYP)

EQUIPOTENTIAL COUNTERPOISE INSTALLATION AND LIGHT BASE GROUNDING DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEMS L-110-5.1, L-110-5.2, L-110-5.3A, AND L-110-5.3B)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

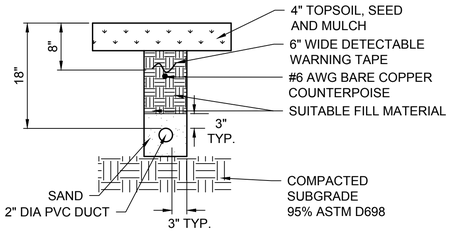
DRAWING TITLE

AIRFIELD ELECTRICAL NOTES AND DETAILS (SHEET 1 OF 4)

DRAWING NUMBER

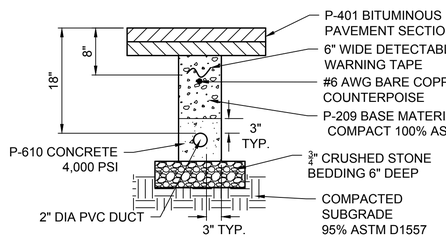
EL-05

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-DETS.DWG



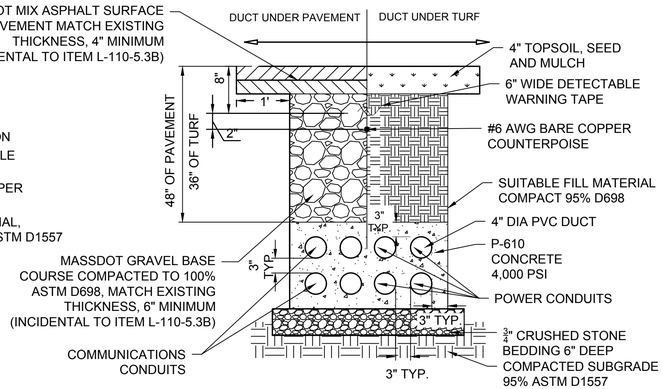
(2")1-WAY UNENCASED DUCT BANK

NOT TO SCALE
(ITEM L-110-5.1)



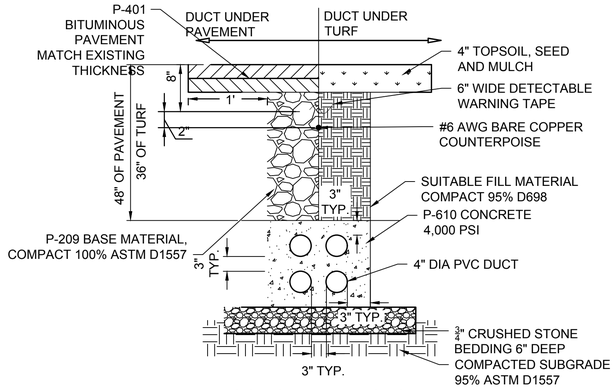
(2")1-WAY CONCRETE ENCASED DUCT BANK

NOT TO SCALE
(ITEM L-110-5.2)


MASSDOT HOT MIX ASPHALT SURFACE PAVEMENT MATCH EXISTING THICKNESS, 4" MINIMUM (INCIDENTAL TO ITEM L-110-5.3B)
DUCT UNDER PAVEMENT
DUCT UNDER TURF
4" TOPSOIL, SEED AND MULCH
6" WIDE DETECTABLE WARNING TAPE
#6 AWG BARE COPPER COUNTERPOISE
SUITABLE FILL MATERIAL COMPACT 95% D698
4" DIA PVC DUCT
P-610 CONCRETE 4,000 PSI
POWER CONDUITS
¾" CRUSHED STONE BEDDING 6" DEEP
COMPACTED SUBGRADE 95% ASTM D1557
8"
1'
2"
48" OF PAVEMENT
36" OF TURF
3" TYP.
3" TYP.
3" TYP.
3" TYP.
MASSDOT GRAVEL BASE COURSE COMPACTED TO 100% ASTM D698, MATCH EXISTING THICKNESS, 6" MINIMUM (INCIDENTAL TO ITEM L-110-5.3B)
COMMUNICATIONS CONDUITS

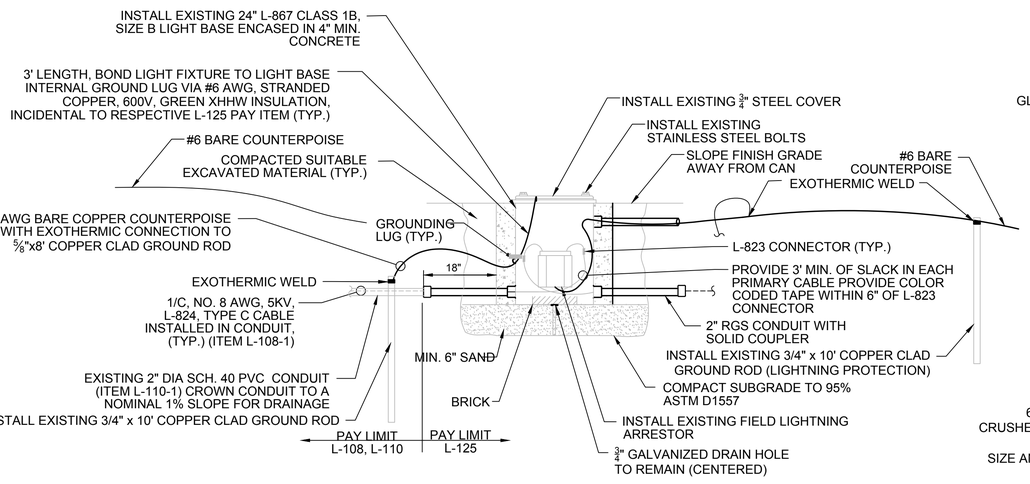
(4") 8-WAY CONCRETE ENCASED DUCT BANK

NOT TO SCALE
(ITEM L-110-5.3B)



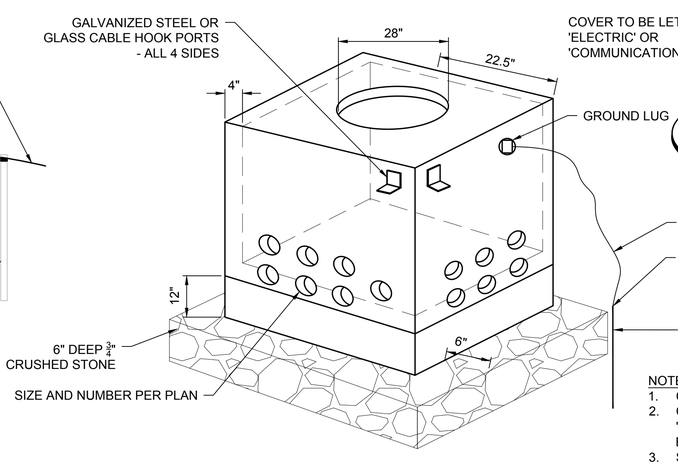
(4")4-WAY CONCRETE ENCASED DUCT BANK

NOT TO SCALE
(ITEM L-110-5.3A)


INSTALL EXISTING 24" L-867 CLASS 1B, SIZE B LIGHT BASE ENCASED IN 4" MIN. CONCRETE
3' LENGTH, BOND LIGHT FIXTURE TO LIGHT BASE INTERNAL GROUND LUG VIA #6 AWG, STRANDED COPPER, 600V, GREEN XHHW INSULATION, INCIDENTAL TO RESPECTIVE L-125 PAY ITEM (TYP.)
INSTALL EXISTING ¾" STEEL COVER
INSTALL EXISTING STAINLESS STEEL BOLTS
#6 BARE COUNTERPOISE
COMPACTED SUITABLE EXCAVATED MATERIAL (TYP.)
SLOPE FINISH GRADE AWAY FROM CAN
#6 BARE COUNTERPOISE
EXOTHERMIC WELD
NO. 6 AWG BARE COPPER COUNTERPOISE WIRE WITH EXOTHERMIC CONNECTION TO ⅝"X8' COPPER CLAD GROUND ROD
GROUNDING LUG (TYP.)
L-823 CONNECTOR (TYP.)
18"
EXOTHERMIC WELD
PROVIDE 3' MIN. OF SLACK IN EACH PRIMARY CABLE PROVIDE COLOR CODED TAPE WITHIN 6" OF L-823 CONNECTOR
1/C, NO. 8 AWG, 5KV, L-824, TYPE C CABLE INSTALLED IN CONDUIT, (TYP.) (ITEM L-108-1)
2" RGS CONDUIT WITH SOLID COUPLER
INSTALL EXISTING 3/4" x 10' COPPER CLAD GROUND ROD (LIGHTNING PROTECTION)
EXISTING 2" DIA SCH. 40 PVC CONDUIT (ITEM L-110-1) CROWN CONDUIT TO A NOMINAL 1% SLOPE FOR DRAINAGE
MIN. 6" SAND
BRICK
COMPACT SUBGRADE TO 95% ASTM D1557
INSTALL EXISTING 3/4" x 10' COPPER CLAD GROUND ROD
INSTALL EXISTING FIELD LIGHTNING ARRESTOR
PAY LIMIT L-108, L-110
PAY LIMIT L-125
¾" GALVANIZED DRAIN HOLE TO REMAIN (CENTERED)

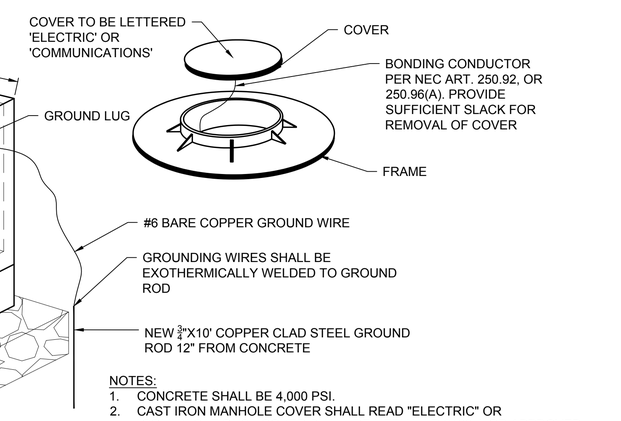
RELOCATE EXISTING FIELD LIGHTING ARRESTOR IN EXISTING BASE CAN

NOT TO SCALE
(ITEM L-125-5.6)

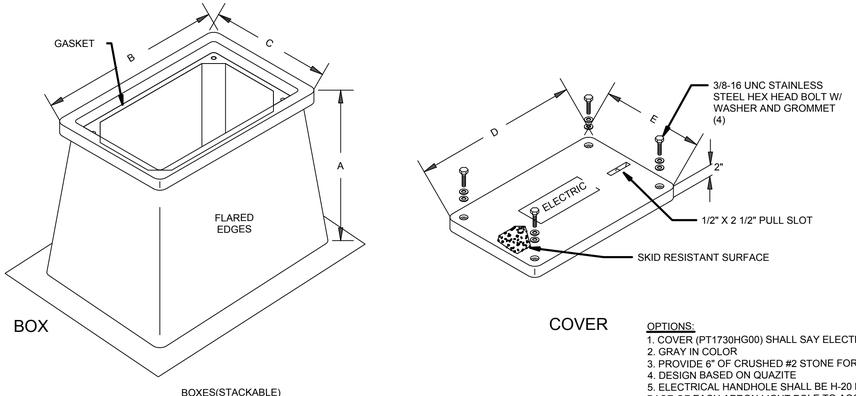


JUNCTION STRUCTURE 4' X 4'

NOT TO SCALE
(ITEM L-115-5.1)


COVER TO BE LETTERED 'ELECTRIC' OR 'COMMUNICATIONS'
COVER
BONDING CONDUCTOR PER NEC ART. 250.92, OR 250.96(A). PROVIDE SUFFICIENT SLACK FOR REMOVAL OF COVER
GROUND LUG
FRAME
#6 BARE COPPER GROUND WIRE
GROUNDING WIRES SHALL BE EXOTHERMICALLY WELDED TO GROUND ROD
NEW ¾"X10' COPPER CLAD STEEL GROUND ROD 12" FROM CONCRETE

NOTES:
1. CONCRETE SHALL BE 4,000 PSI.
2. CAST IRON MANHOLE COVER SHALL READ "ELECTRIC" OR "COMUNICATIONS". COVER SHALL BE NEENAH R-3493-A OR APPROVED EQUAL.
3. STONE BASE SHALL BE COMPACTED 95% MAX DENSITY, PER ASTM D1557
4. HANDHOLE COVERS AND FRAMES SHALL BE SET FLUSH WITH FINISH GRADE. ADJUST TO GRADE WITH A MINIMUM OF TWO (2) AND A MAXIMUM OF FIVE (5) COURSES OF CLAY BRICK.
5. NEW ¾" x 10" COPPER CLAD STEEL GROUND ROD SHALL BE PLACED 12" FROM HANDHOLE.
6. ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES AND FRAME AND GRATES SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT 100,000 LB AIRCRAFT LOADING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS
7. METAL COVERS AND OTHER EXPOSED CONDUCTIVE SURFACES SHALL BE BONDED IN ACCORDANCE WITH NEC ART. 250.92 IF THE CONDUCTORS IN THE ENCLOSURE ARE SERVICE CONDUCTORS, OR IN ACCORDANCE WITH 250.96(A) IF THE CONDUCTORS IN THE ENCLOSURE ARE FEEDER OR BRANCH-CIRCUIT CONDUCTORS.



BOXES(STACKABLE)

DESCRIPTION	PART NO.	TIER RATING	DIMENSIONS				
			A	B	C	D	E
W/BASE	PT1730BG18	15	18"	32"	19"	30"	17"

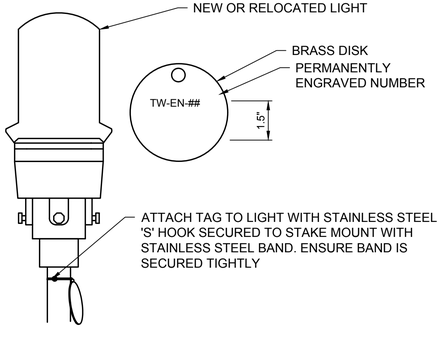
ELECTRICAL HANDHOLE

NOT TO SCALE
(INCIDENTAL TO ITEMS M-300-1, M-300-2, AND M-300-2A)

OPTIONS:
1. COVER (PT1730HG00) SHALL SAY ELECTRIC
2. GRAY IN COLOR
3. PROVIDE 6" OF CRUSHED #2 STONE FOR BASE
4. DESIGN BASED ON QUAZITE
5. ELECTRICAL HANDHOLE SHALL BE H-20 RATED AND INSTALLED AT THE BASE OF EACH APRON LIGHT POLE TO ACCESS LIGHTING CIRCUIT

CONDUITS SHALL COME UP THROUGH HANDHOLE AND SWEEP INTO SPACE. WEATHERPROOF SPLICES SHALL BE MADE.

TYPICAL FOR POLYMER-CONCRETE HANDHOLES. IF METAL COVER AND/OR ENCLOSURE IS PROVIDED, ALL EXPOSED CONDUCTIVE SURFACES SHALL BE BONDED IN ACCORDANCE WITH NEC ART. 250.92 IF THE CONDUCTORS IN THE ENCLOSURE ARE SERVICE CONDUCTORS, OR IN ACCORDANCE WITH 250.96(A) IF THE CONDUCTORS IN THE ENCLOSURE ARE FEEDER OR BRANCH-CIRCUIT CONDUCTORS.


NEW OR RELOCATED LIGHT
BRASS DISK PERMANENTLY ENGRAVED NUMBER
TW-EN-##
1.5"
ATTACH TAG TO LIGHT WITH STAINLESS STEEL 'S' HOOK SECURED TO STAKE MOUNT WITH STAINLESS STEEL BAND. ENSURE BAND IS SECURED TIGHTLY

NOTE:
EACH LIGHT SHALL BE TAGGED WITH THE IDENTIFICATION NUMBER AS SHOWN ON SHEETS EL-01 AND EL-02

LIGHT IDENTIFICATION TAG DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEM L-125-5.1 & L-125-5.4)

GENERAL NOTES:
1. THE CONTRACTOR SHALL MARK OUT IN THE FIELD THE PROPOSED ROUTING OF ALL DUCT BANK RUNS FOR APPROVAL BY THE ENGINEER PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR IS REQUIRED TO DETERMINE AND VERIFY ALL UNDERGROUND UTILITIES THAT ARE IN THE VICINITY OF THE DUCT BANK RUN AND REPORT POTENTIAL CROSSINGS AND CONFLICTS TO THE ENGINEER. NO EXCAVATION SHALL TAKE PLACE UNTIL MITIGATION MEASURES ARE AGREED TO FOR THE PROTECTION OR REPLACE OF EFFECTED UTILITIES.
3. HIGH VOLTAGE DUCT(S) (5KV) AND LOW VOLTAGE DUCT(S) (600V AND LESS) SHALL BE SEPARATED WITHIN THE DUCT BANK BY A MINIMUM OF 12 INCHES. UNLESS OTHERWISE SPECIFIED OR DIRECTED, THE LOW VOLTAGE DUCTS SHALL BE TO THE LEFT OF THE DUCT AND CONTAIN THE FEW NUMBER OF INDIVIDUAL DUCTS, WITHIN THE DUCT BANK.
4. THE CONTRACTOR SHALL USE CONDUIT SPACERS PLACED AT INTERVALS NOT TO EXCEED 5 FEET ALONG THE LENGTH OF THE DUCT.
5. THREE (3) INCHES MINIMUM OF CONCRETE SHALL BE PLACED AND CONSOLIDATED SO IT COMPLETELY SURROUNDS THE DUCTS (BOTTOM, TOP, SIDES AND IN BETWEEN).
6. CONCRETE SHALL BE ALLOWED CURE PRIOR TO BACKFILLING.

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

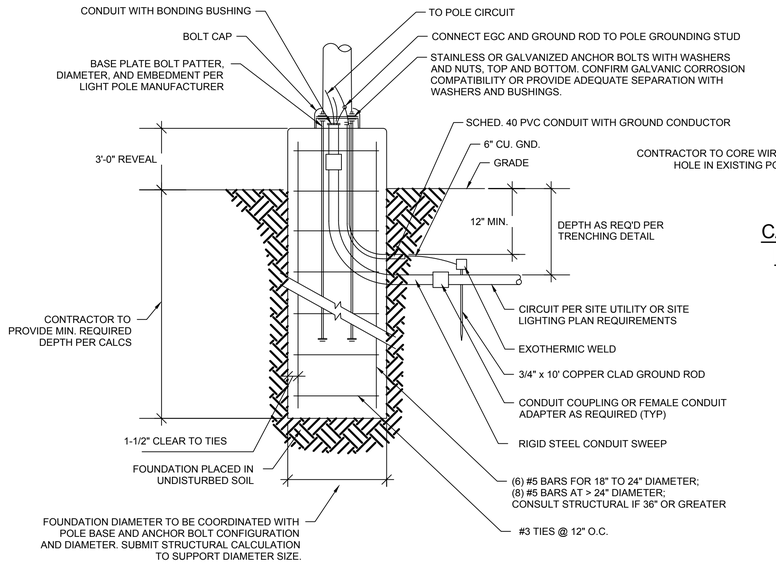
DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
AIRFIELD ELECTRICAL NOTES AND DETAILS (SHEET 2 OF 4)

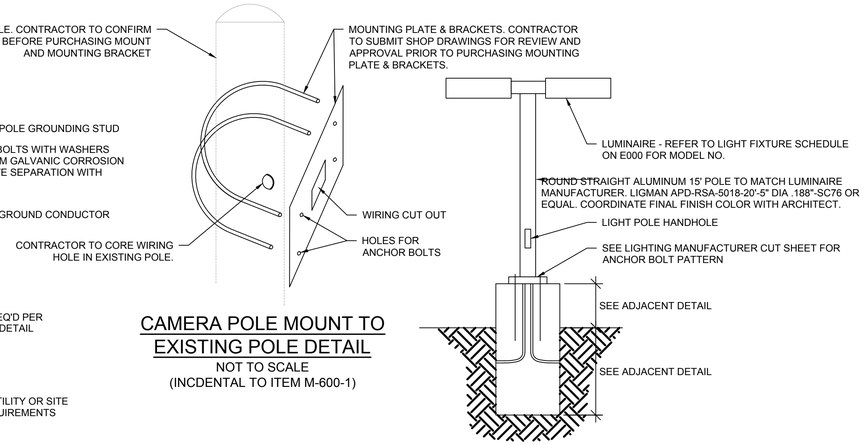
DRAWING NUMBER
EL-06
50 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07 OETS.DWG


CONDUIT WITH BONDING BUSHING
BOLT CAP
BASE PLATE BOLT PATTER, DIAMETER, AND EMBEDMENT PER LIGHT POLE MANUFACTURER
TO POLE CIRCUIT
CONNECT EGC AND GROUND ROD TO POLE GROUNDING STUD
STAINLESS OR GALVANIZED ANCHOR BOLTS WITH WASHERS AND NUTS, TOP AND BOTTOM. CONFIRM GALVANIC CORROSION COMPATIBILITY OR PROVIDE ADEQUATE SEPARATION WITH WASHERS AND BUSHINGS.
SCHED. 40 PVC CONDUIT WITH GROUND CONDUCTOR
6" CU. GND.
GRADE
3'-0" REVEAL
12" MIN.
DEPTH AS REQ'D PER TRENCHING DETAIL
CONTRACTOR TO PROVIDE MIN. REQUIRED DEPTH PER CALCS
CIRCUIT PER SITE UTILITY OR SITE LIGHTING PLAN REQUIREMENTS
EXOTHERMIC WELD
3/4" x 10' COPPER CLAD GROUND ROD
CONDUIT COUPLING OR FEMALE CONDUIT ADAPTER AS REQUIRED (TYP)
1-1/2" CLEAR TO TIES
RIGID STEEL CONDUIT SWEEP
FOUNDATION PLACED IN UNDISTURBED SOIL
(6) #5 BARS FOR 18" TO 24" DIAMETER; (8) #5 BARS AT > 24" DIAMETER; CONSULT STRUCTURAL IF 36" OR GREATER
#3 TIES @ 12" O.C.
FOUNDATION DIAMETER TO BE COORDINATED WITH POLE BASE AND ANCHOR BOLT CONFIGURATION AND DIAMETER. SUBMIT STRUCTURAL CALCULATION TO SUPPORT DIAMETER SIZE.

LIGHT POLE DETAIL

NOT TO SCALE
(ITEM M-300-1)


EXISTING LIGHT POLE. CONTRACTOR TO CONFIRM POLE DIAMETER BEFORE PURCHASING MOUNT AND MOUNTING BRACKET
MOUNTING PLATE & BRACKETS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO PURCHASING MOUNTING PLATE & BRACKETS.
WIRING CUT OUT
HOLES FOR ANCHOR BOLTS
CONTRACTOR TO CORE WIRING HOLE IN EXISTING POLE.
LUMINAIRE - REFER TO LIGHT FIXTURE SCHEDULE ON E000 FOR MODEL NO.
ROUND STRAIGHT ALUMINUM 15' POLE TO MATCH LUMINAIRE MANUFACTURER. LIGMAN APD-RSA-5018-20'-5" DIA .188"-SC76 OR EQUAL. COORDINATE FINAL FINISH COLOR WITH ARCHITECT.
LIGHT POLE HANDHOLE
SEE LIGHTING MANUFACTURER CUT SHEET FOR ANCHOR BOLT PATTERN
SEE ADJACENT DETAIL
SEE ADJACENT DETAIL

CAMERA POLE MOUNT TO EXISTING POLE DETAIL

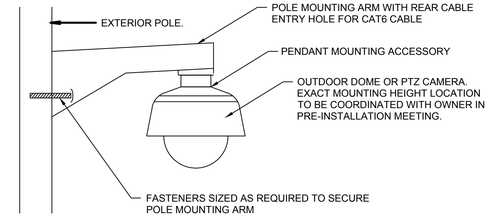
NOT TO SCALE
(INCDENTAL TO ITEM M-600-1)

BASIS OF DESIGN PARAMETERS:

AASHTO MPH:	120 MPH	120 MPH
LIGHT POLE EPA:	8.65 SF	2.4 SF
LIGHT POLE HEIGHT:	15 FEET	30 FEET
LIGHT POLE MAX WEIGHT:	76 LB	253 LB
LIGHT POLE SHAFT SIZE:	STRAIGHT	STRAIGHT
ANCHOR BOLT SIZE & PROJECTION:	1"x33"x3"	1"x33"x3"
BOLT CIRCLE DIAMETER:	11 INCHES	12 INCHES
LIGHT FIXTURE EPA:	.739 SF	0.739 SF
LIGHT FIXTURE WEIGHT:	72 LB	72 LB
CAMERA WEIGHT:	N/A	4 LB
TENON BULL HORN EPA:	.4 SF	1.5 SF
TENON BULL HORN WEIGHT:	14 LB	10 LB
# OF LIGHT FIXTURES ON POLE:	1	1
TOTAL EPA:	9.789 SF	4.639 SF
TOTAL WEIGHT:	166 LB	339 LB

GENERAL NOTES:

1. ALL NEW CAMERAS SHALL BE COMPATIBLE WITH THE AVIGILON CONTROL CENTER ENTERPRISE EDITION 2.10.26.0 (0).
2. PROVIDE NEW LIGHTING RELAY CABINET. COORDINATE FINAL LOCATION OF CABINET WITH OWNER PRIOR TO INSTALLATION.
   DESIGN BASE: NEXLIGHT NXL-R16S
3. PROVIDE (3) NEW 3-BUTTON PUSH BUTTON SWITCHES TO CONTROL NEW LIGHT POLE FIXTURES. COORDINATE WITH OWNER ON FINAL LOCATION OF SWITCHES PRIOR TO INSTALLATION.
   DESIGN BASE: NEXLIGHT CRC3023
4. ALL CAMERAS SHALL BE POLE MOUNTED AT 30' ABOVE FINISHED GRADE.


EXTERIOR POLE.
POLE MOUNTING ARM WITH REAR CABLE ENTRY HOLE FOR CAT6 CABLE
PENDANT MOUNTING ACCESSORY
OUTDOOR DOME OR PTZ CAMERA. EXACT MOUNTING HEIGHT LOCATION TO BE COORDINATED WITH OWNER IN PRE-INSTALLATION MEETING.
FASTENERS SIZED AS REQUIRED TO SECURE POLE MOUNTING ARM

ADDITIONAL NOTES:

1. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INSTALLATION INTRICACIES AND INFORMATION.
2. MOUNTING HARDWARE SELECTED BY CONTRACTOR SHALL BE SUITABLE FOR POLE TYPE AND ENVIRONMENT.
3. CAMERA MOUNTING DETAIL MEANT TO SHOW INTENT ONLY. INSTALLATION DETAILS WILL VARY DEPENDING ON MANUFACTURER AND OFFERED MOUNTING HARDWARE.

CAMERA DETAIL

NOT TO SCALE
(ITEMS M-600-1 AND M-600-2)

LIGHT FIXTURE SCHEDULE

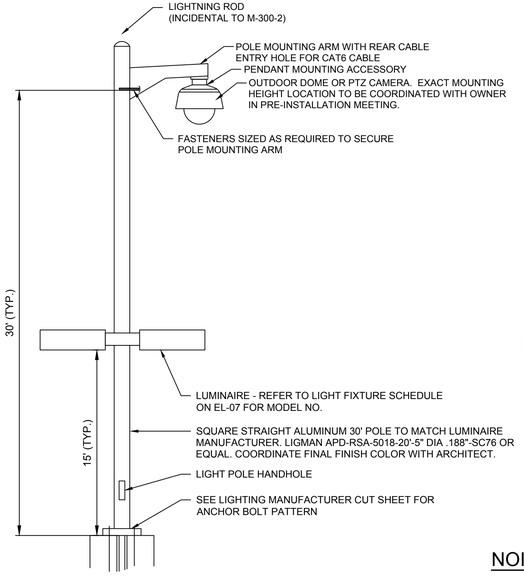
NOTES:

1. PROVIDE INTEGRAL EMERGENCY BATTERY (14 WATT OR SIMILAR) FOR ALL FIXTURES WITH "E" EMERGENCY DESIGNATION

TYPE MARK	DESCRIPTION	LUMENS (LM)	WATTS (W)	MANUFACTURER	MODEL	VOLTAGE	MOUNTING	MOUNTING HEIGHT	COMMENTS
A	LED POLE FLOODLIGHT	59222 lm	386	GARDCO	PFF-184-700-NW-G2-SF-AIRP-UNV-WH	277 V	POLE	15'	1
B	LED POLE FLOODLIGHT	59222 lm	386	GARDCO	PFF-184-700-NW-G2-SF-AIRP-UNV-WH	277 V	POLE	15'	2

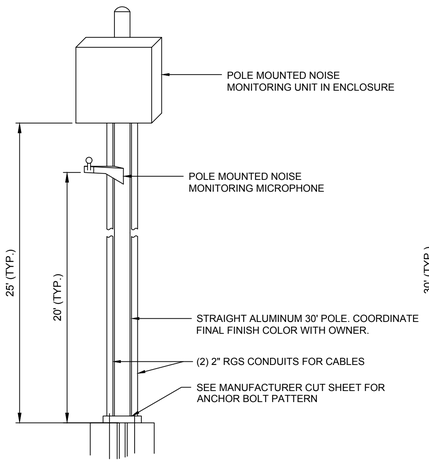
LUMINAIRE SCHEDULE NOTES:

1. PROVIDE 15' SQUARE POLE.
   DESIGN BASE: GARDCO SSA-STB-5-125-15-D1-DT3-WH
   PROVIDE TENON MOUNT BRACKET FOR 5" SQUARE POLE.
   DESIGN BASE: GARDCO SBRKT-ITA-L1-5-SQ5-WH
2. PROVIDE 30' SQUARE POLE.
   DESIGN BASE: GARDCO SSA-STB-6-250-30-D1-DT3-WH
   PROVIDE TENON MOUNT BRACKET FOR 6" SQUARE POLE.
   DESIGN BASE: GARDCO SBRKT-RA-L1-12/13-SQ4-WH


LIGHTNING ROD (INCIDENTAL TO M-300-2)
POLE MOUNTING ARM WITH REAR CABLE ENTRY HOLE FOR CAT6 CABLE
PENDANT MOUNTING ACCESSORY
OUTDOOR DOME OR PTZ CAMERA. EXACT MOUNTING HEIGHT LOCATION TO BE COORDINATED WITH OWNER IN PRE-INSTALLATION MEETING.
FASTENERS SIZED AS REQUIRED TO SECURE POLE MOUNTING ARM
30' (TYP.)
15' (TYP.)
LUMINAIRE - REFER TO LIGHT FIXTURE SCHEDULE ON EL-07 FOR MODEL NO.
SQUARE STRAIGHT ALUMINUM 30' POLE TO MATCH LUMINAIRE MANUFACTURER. LIGMAN APD-RSA-5018-20'-5" DIA .188"-SC76 OR EQUAL. COORDINATE FINAL FINISH COLOR WITH ARCHITECT.
LIGHT POLE HANDHOLE
SEE LIGHTING MANUFACTURER CUT SHEET FOR ANCHOR BOLT PATTERN

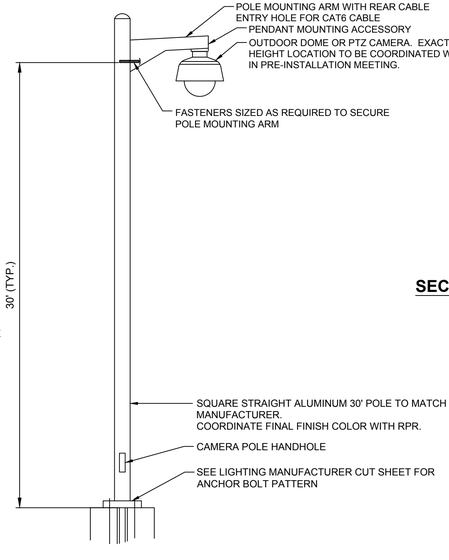
CAMERA & LIGHT POLE DETAIL

NOT TO SCALE
(ITEM M-300-2)


POLE MOUNTED NOISE MONITORING UNIT IN ENCLOSURE
POLE MOUNTED NOISE MONITORING MICROPHONE
25' (TYP.)
20' (TYP.)
STRAIGHT ALUMINUM 30' POLE. COORDINATE FINAL FINISH COLOR WITH OWNER.
(2) 2" RGS CONDUITS FOR CABLES
SEE MANUFACTURER CUT SHEET FOR ANCHOR BOLT PATTERN

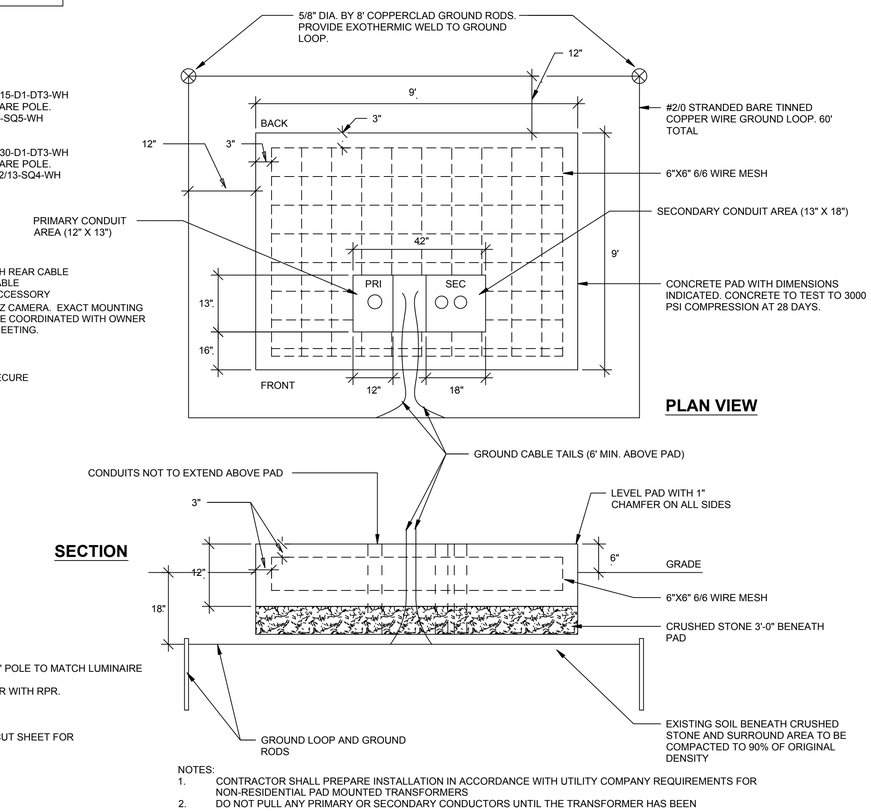
NOISE MONITORING UNIT POLE DETAIL

NOT TO SCALE
(ITEM M-300-3)


POLE MOUNTING ARM WITH REAR CABLE ENTRY HOLE FOR CAT6 CABLE
PENDANT MOUNTING ACCESSORY
OUTDOOR DOME OR PTZ CAMERA. EXACT MOUNTING HEIGHT LOCATION TO BE COORDINATED WITH OWNER IN PRE-INSTALLATION MEETING.
FASTENERS SIZED AS REQUIRED TO SECURE POLE MOUNTING ARM
30' (TYP.)
SQUARE STRAIGHT ALUMINUM 30' POLE TO MATCH LUMINAIRE MANUFACTURER.
COORDINATE FINAL FINISH COLOR WITH RPR.
CAMERA POLE HANDHOLE
SEE LIGHTING MANUFACTURER CUT SHEET FOR ANCHOR BOLT PATTERN

CAMERA POLE DETAIL

NOT TO SCALE
(ITEM M-300-2)



NOTES:
1. CONTRACTOR SHALL PREPARE INSTALLATION IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS FOR NON-RESIDENTIAL PAD MOUNTED TRANSFORMERS
2. DO NOT PULL ANY PRIMARY OR SECONDARY CONDUCTORS UNTIL THE TRANSFORMER HAS BEEN DELIVERED.

TRANSFORMER PAD LAYOUT DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEM M-300-6)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

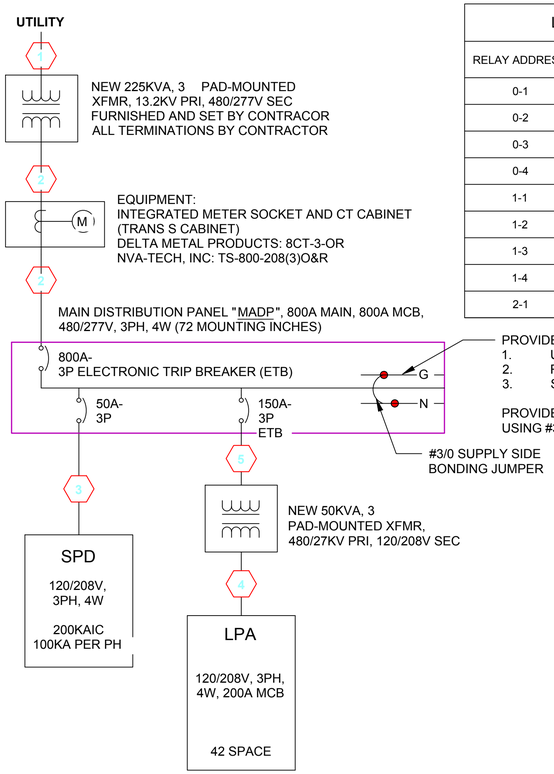
DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
AIRFIELD ELECTRICAL NOTES AND DETAILS (SHEET 3 OF 4)

DRAWING NUMBER
EL-07
51 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\SIGNAGE\DRAWINGS\SHEET FILES\18706.07-DETS.DWG


UTILITY
1
NEW 225KVA, 3 PAD-MOUNTED XFMR, 13.2KV PRI, 480/277V SEC FURNISHED AND SET BY CONTRACOR ALL TERMINATIONS BY CONTRACTOR
2
EQUIPMENT: INTEGRATED METER SOCKET AND CT CABINET (TRANS S CABINET) DELTA METAL PRODUCTS: 8CT-3-OR NVA-TECH, INC: TS-800-208(3)O&R
M
2
MAIN DISTRIBUTION PANEL "MADP", 800A MAIN, 800A MCB, 480/277V, 3PH, 4W (72 MOUNTING INCHES)
800A- 3P ELECTRONIC TRIP BREAKER (ETB)
G
N
50A- 3P
150A- 3P ETB
#3/0 SUPPLY SIDE BONDING JUMPER
3
5
NEW 50KVA, 3 PAD-MOUNTED XFMR, 480/27KV PRI, 120/208V SEC
SPD
120/208V, 3PH, 4W
200KAIC 100KA PER PH
4
LPA
120/208V, 3PH, 4W, 200A MCB
42 SPACE

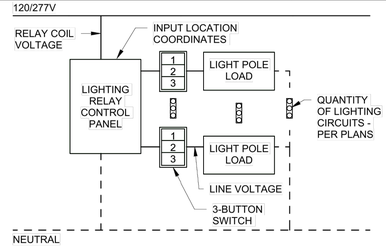
LIGHTING RELAY CABINET		
RELAY ADDRESS	LIGHT POLE #	CIRCUIT REFERENCE (PANEL, CIRCUIT #)
0-1	#1	ALP , 20
0-2	#2	ALP , 22
0-3	#3	ALP , 24
0-4	#4	ALP , 26
1-1	#5	ALP , 28
1-2	#6	ALP , 30
1-3	#7	ALP , 32
1-4	#8	ALP , 34
2-1	#9	ALP , 36

PROVIDE GEC CONDUCTORS USING #3/0 FROM THE FOLLOWING:
1. UNDERGROUND METAL WATER SERVICE
2. REINFORCED CONCRETE / BUILDING STEEL
3. SUPPLEMENTAL GROUND RODS

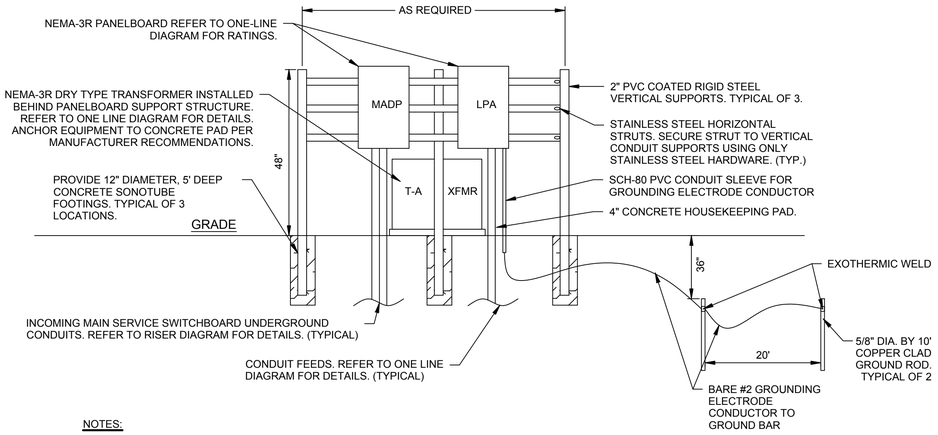
PROVIDE ADDITIONING BONDING FOR METAL WATER PIPING USING #3/0.

UTILITY NOTES:

1. **PRIMARY CABLE:**
   - A. 15KV RATED, SHIELDED, 175 MILS EPR INSULATION, FULL CONCENTRIC NEUTRAL, OVERALL SEMI-CONDUCTING POLYETHYLENE JACKET, (3) EQUALLY SPACED EXTRUDED RED STRIPES
   - B. MANUFACTURED AND TESTED TO MEET THE LATEST REQUIREMENTS OF ICEA & AEIC NO. CS6-87
   - C. #2 AWG ALUMINUM MINIMUM
   - D. KERITE URD (SPS-HTK) OR OKONITE OKOGUARD URD-J OR APPROVED EQUIVALENT
   - E. MANUFACTURER SPEC. OF PROPOSED CABLES SHALL BE SUBMITTED TO UTILITY COMPANY FOR REVIEW AND WRITTEN APPROVAL PRIOR TO PURCHASE AND INSTALLATION.
2. **DIVISION OF WORK (CONTRACTOR RESPONSIBLITIES):**
   - A. TRANSFORMER PAD
   - B. CONDUIT WORK, INCLUDING CONDUIT RISER UP UTILITY POLE
   - C. GROUNDING
   - D. PRIMARY CABLE INSTALLATION (INCLUDING TERMINATIONS)
     - a. RISER POLE TERMINATION KIT SHALL BE APPROVED BY UTILITY COMPANY FOR #2 AWG CONDUCTORS
     - b. DEAD FRONT TRANSFORMER TERMINATION KIT: LOAD BREAK TYPE
       - LOADBREAK ELBOW FOR #2 AWG CONDUCTORS APPROVED BY UTILITY COMPANY
       - BUSHING WELL INSERTS APPROVED BY UTILITY COMPANY
       - GROUNDED PROTECTIVE DEAD END CAPS APPROVED BY UTILITY COMPANY
   - E. SECONDARY CABLE INSTALLATION (INCLUDING TERMINATIONS)
   - F. METER SOCKET AND CT CABINET
   - G. REFER TO UTILITY COMPANY SPECIFICATIONS FOR ADDITIONAL INFORMATION

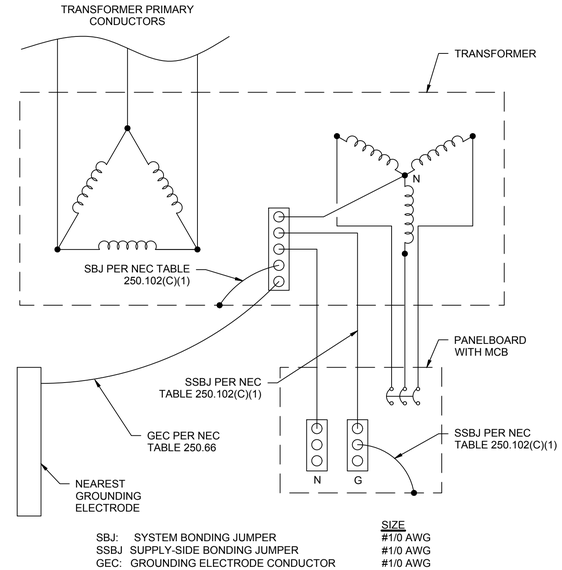


LIGHT POLE CONTROL SCHEMATIC
Scale: Not To Scale


AS REQUIRED
NEMA-3R PANELBOARD REFER TO ONE-LINE DIAGRAM FOR RATINGS.
NEMA-3R DRY TYPE TRANSFORMER INSTALLED BEHIND PANELBOARD SUPPORT STRUCTURE. REFER TO ONE LINE DIAGRAM FOR DETAILS. ANCHOR EQUIPMENT TO CONCRETE PAD PER MANUFACTURER RECOMMENDATIONS.
MADP
LPA
T-A
XFMR
48"
2" PVC COATED RIGID STEEL VERTICAL SUPPORTS. TYPICAL OF 3.
STAINLESS STEEL HORIZONTAL STRUTS. SECURE STRUT TO VERTICAL CONDUIT SUPPORTS USING ONLY STAINLESS STEEL HARDWARE. (TYP.)
SCH-80 PVC CONDUIT SLEEVE FOR GROUNDING ELECTRODE CONDUCTOR
4" CONCRETE HOUSEKEEPING PAD.
PROVIDE 12" DIAMETER, 5' DEEP CONCRETE SONOTUBE FOOTINGS. TYPICAL OF 3 LOCATIONS.
GRADE
36"
EXOTHERMIC WELD
20'
5/8" DIA. BY 10' COPPER CLAD GROUND ROD. TYPICAL OF 2
INCOMING MAIN SERVICE SWITCHBOARD UNDERGROUND CONDUITS. REFER TO RISER DIAGRAM FOR DETAILS. (TYPICAL)
CONDUIT FEEDS. REFER TO ONE LINE DIAGRAM FOR DETAILS. (TYPICAL)
BARE #2 GROUNDING ELECTRODE CONDUCTOR TO GROUND BAR

NOTES:
1. PANELBOARDS TO BE INSTALLED NO HIGHER THAN 48" A.F.F. TO THE HIGHEST OPERABLE SWITCH OR CIRCUIT BREAKER. PANELBOARDS TO HAVE A FACTORY INSTALLED INTEGRAL PADLOCK OR KEYED LOCK PROVISION.

ELECTRIC PEDESTAL ELEVATION DETAIL
Scale: Not To Scale



SBJ: SYSTEM BONDING JUMPER — SIZE #1/0 AWG
SSBJ SUPPLY-SIDE BONDING JUMPER — #1/0 AWG
GEC: GROUNDING ELECTRODE CONDUCTOR — #1/0 AWG

STEP-DOWN TRANSFORMER DETAIL
Scale: Not To Scale

ELECTRICAL FEEDER SCHEDULE

1. (3) 15KV CABLE APPROVED BY UTILITY COMPANY (SEE NOTES) IN 4" CONDUIT
2. 2 SETS OF: (4) 400KCMIL, (1) #4G IN 4" CONDUIT
3. (3) #8, (1) #10G IN 1" CONDUIT
4. (4) 3/0, (1) #6G IN 2-1/2" CONDUIT
5. (4) #1/0, (1) #6G IN 2" CONDUIT

BRANCH PANEL: LPA

LOCATION:
SUPPLY FROM: T-A
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

VOLTS: 208Y/120V
PHASES: 3
WIRES: 4

A.I.C. RATING: 65 kA
MAINS TYPE: MCB
MAINS RATING: 200 A
MCB RATING: 200 A

NOTES:

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
1	NOISE MONITORING DEVICE	20 A	1	180									2
3	CAMERA POWER SUPPLY	20 A	1			180							4
5	CAMERA POWER SUPPLY	20 A	1					180					6
7	CAMERA POWER SUPPLY	20 A	1	180									8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
		Total Load:		360 VA		180 VA		180 VA					
		Total Amps:		3 A		2 A		2 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	720 VA	100.00%	720 VA		
				Total Conn. Load:	720 VA
				Total Est. Demand:	720 VA
				Total Conn. Current:	2 A
				Total Est. Demand Current:	2 A

BRANCH PANEL: MADP

LOCATION:
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

VOLTS: 480Y/277V
PHASES: 3
WIRES: 4

A.I.C. RATING: 65 kA
MAINS TYPE: MCB
MAINS RATING: 800 A
MCB RATING: 800 A

NOTES:

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
1				360									
3	LPA	150 A	3			180				3	50 A		SPD
5								180					
7													8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37	SPARE	20 A	1	0	0					1	20 A	SPARE	38
39	SPARE	20 A	1			0	0			1	20 A	SPARE	40
41	SPARE	20 A	1					0	0	1	20 A	SPARE	42
		Total Load:		360 VA		180 VA		180 VA					
		Total Amps:		1 A		1 A		1 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	720 VA	100.00%	720 VA		
				Total Conn. Load:	720 VA
				Total Est. Demand:	720 VA
				Total Conn. Current:	1 A
				Total Est. Demand Current:	1 A

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS
PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
AIRFIELD ELECTRICAL NOTES AND DETAILS (SHEET 4 OF 4)

DRAWING NUMBER
EL-08
52 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\WORK\RAWINGS\SHEET FILES\18706.07-DETS.DWG

PROPOSED AIRFIELD GUIDANCE SIGN SCHEDULE

NO.	LEGEND FRONT	LEGEND BACK	PANEL TYPE FRONT	PANEL TYPE BACK	SIZE	STYLE	MODULES	LOCATION	ITEM #	REMARKS
157	↖ F E	E J →	Y/L	L/Y	2	2	2	SEE POINT TABLE ON SHEET EL-09	L-125-5.5	RELOCATE EXISTING SIGN & FOUNDATION
225	← J E	BLANK	Y/L	B	2	2	2	SEE POINT TABLE ON SHEET EL-09	L-125-5.3B	INSTALL NEW AIRFIELD SIGN
226	J ← E →	BLANK	L/Y	B	2	2	3	SEE POINT TABLE ON SHEET EL-09	L-125-5.5	RELOCATE EXISTING SIGN & FOUNDATION
228	← J	BLANK	Y	B	2	2	1	SEE POINT TABLE ON SHEET EL-09	L-125-5.3A	INSTALL NEW AIRFIELD SIGN
230	J	BLANK	L	B	2	2	1	SEE POINT TABLE ON SHEET EL-09	L-125-5.3A	INSTALL NEW AIRFIELD SIGN
240	E L →	BLANK	Y/L/Y/Y	B	2	2	2	SEE POINT TABLE ON SHEET EL-09	L-125-5.3B	INSTALL NEW AIRFIELD SIGN
241	L ← E →	BLANK	Y/L/Y/Y	B	2	2	3	SEE POINT TABLE ON SHEET EL-09	L-125-5.3C	INSTALL NEW AIRFIELD SIGN
242	L	BLANK	L	B	2	2	1	SEE POINT TABLE ON SHEET EL-09	L-125-5.3A	INSTALL NEW AIRFIELD SIGN
243	← L E	BLANK	Y/L/Y/Y	B	2	2	2	SEE POINT TABLE ON SHEET EL-09	L-125-5.3B	INSTALL NEW AIRFIELD SIGN
244	CONTACT GROUND FREQ.132.5	BLANK	Y	B	2	N/A	N/A	SEE POINT TABLE ON SHEET EL-09	L-125-5.2	INSTALL NEW UNLIT AIRFIELD SIGN
245	CONTACT GROUND FREQ.132.5	BLANK	Y	B	2	N/A	N/A	SEE POINT TABLE ON SHEET EL-09	L-125-5.2	INSTALL NEW UNLIT AIRFIELD SIGN

KEY		
L	LOCATION	YELLOW LETTERS, BLACK BACKGROUND
Y	DIRECTION	BLACK LETTERS, YELLOW BACKGROUND
M	MANDATORY	WHITE LETTERS, RED BACKGROUND
B	BLANK	BLACK BACKGROUND

NOTES:
1. REFER TO POINT TABLES ON SHEET EL-09 FOR LOCATIONS.
2. REFER TO SHEET MK-01 FOR UNLIT AIRFIELD SIGN DETAIL.

LIGHT FIXTURE SCHEDULE

POINT	NORTHING	EASTING	ELEVATION	ITEM #	LIGHT I.D.
1	91027.25	1758115.3738	21.35	L-125-5.1	TWES-84
2	91132.62	1758217.2831	22.11	L-125-5.1	TWES-85
3	91241.38	1758315.7911	22.85	L-125-5.1	TWES-86
4	91275.29	1758335.6022	22.92	L-125-5.1	TWES-87
5	91309.20	1758355.4133	22.93	L-125-5.1	TWES-88
6	91342.93	1758335.2857	22.40	L-125-5.1	TWES-89
7	91376.65	1758315.1581	21.87	L-125-5.1	TWES-90
8	90977.99	1758165.1225	21.40	L-125-5.4	TWES-53
9	91082.15	1758268.2571	22.25	L-125-5.4	TWES-54
10	91186.31	1758371.2995	23.11	L-125-5.4	TWES-55
11	91213.33	1758398.1409	23.33	L-125-5.4	TWES-56
12	91240.36	1758424.9085	23.55	L-125-5.4	TWES-61
13	91284.10	1758468.2275	23.91	L-125-5.1	TWES-91
14	91327.84	1758511.5355	24.27	L-125-5.1	TWES-92
15	91354.88	1758538.3062	24.49	L-125-5.1	TWES-93
16	91381.91	1758565.0720	24.71	L-125-5.1	TWES-94
17	91514.04	1758696.2050	25.79	L-125-5.1	TWES-95
18	91563.44	1758646.3692	25.67	L-125-5.4	TWES-14
19	91436.93	1758509.5191	24.39	L-125-5.4	TWES-15
20	91416.81	1758475.7960	24.07	L-125-5.4	TWES-16
21	91396.68	1758442.0729	23.76	L-125-5.4	TWES-17

LIGHT FIXTURE SCHEDULE

POINT	NORTHING	EASTING	ELEVATION	ITEM #	LIGHT I.D.
22	91402.20	1758432.6163	23.71	L-125-5.1	TWES-96
23	91411.72	1758426.8929	23.57	L-125-5.1	TWES-97
24	91445.63	1758446.7046	23.32	L-125-5.1	TWES-98
25	91479.54	1758466.5157	23.16	L-125-5.1	TWES-99
26	91616.61	1758592.4841	24.16	L-125-5.1	TWES-100
27	91744.73	1758719.4103	25.33	L-125-5.1	TWES-101
28	91872.82	1758846.3028	26.58	L-125-5.1	TWES-102
29	92000.61	1758972.9105	27.83	L-125-5.1	TWES-103
30	92124.04	1759105.0198	29.17	L-125-5.1	TWES-104
31	92144.17	1759138.7429	29.54	L-125-5.1	TWES-105
32	92164.30	1759172.4660	29.92	L-125-5.1	TWES-106
33	92158.59	1759182.0075	30.33	L-125-5.1	TWES-107
34	92149.26	1759187.6455	30.56	L-125-5.1	TWES-108
35	92115.35	1759167.8344	30.43	L-125-5.4	TWES-8
36	92081.44	1759148.0233	30.37	L-125-5.4	TWES-9
37	92276.99	1759341.7513	32.22	L-125-5.1	TWES-109
38	92256.86	1759308.0282	31.77	L-125-5.1	TWES-110
39	92236.73	1759274.3051	31.33	L-125-5.1	TWES-111
40	92256.55	1759240.3952	30.68	L-125-5.1	TWES-112
41	92278.02	1759204.8029	29.97	L-125-5.1	TWES-113
42	92313.41	1759182.9930	29.40	L-125-5.1	TWES-114

ELECTRICAL STRUCTURES POINT TABLE

POINT	NORTHING	EASTING	ELEVATION	STRUCTURE I.D.
301	91323.02	1758336.4741	22.54	HH-19
302	91420.18	1758432.7207	23.46	HH-20
303	92028.15	1759102.9928	30.05	303
304	92158.23	1759163.9048	29.80	HH-21
305	92255.68	1759260.4448	30.90	HH-22

AIRFIELD GUIDANCE SIGNS POINT TABLE

POINT	NORTHING	EASTING	ELEVATION	ITEM #	SIGN I.D.
157	92301.28	1759353.0257	32.27	L-125-5.5	157
225	92070.88	1759122.7022	29.90	L-125-5.3	225
226	92256.47	1759278.8243	31.10	L-125-5.5	226
228	92457.70	1759002.1842	24.41	L-125-5.3	228
230	92144.59	1759167.7023	29.72	L-125-5.3	230
240	91392.57	1758590.9518	25.46	L-125-5.5	240
241	91416.23	1758446.3833	23.44	L-125-5.3	241
242	91304.88	1758336.0991	22.56	L-125-5.3	242
243	91230.39	1758290.3371	22.54	L-125-5.3	243
244	91432.05	1758457.4088	23.13	L-125-5.2	244
245	92272.16	1759289.6086	31.31	L-125-5.2	245

CONDUIT LAYOUT TABLE

POINT	NORTHING	EASTING
1	91594.17	1758176.89
2	91627.84	1758210.30
3	91722.20	1758303.90
4	91754.42	1758335.88
5	91768.33	1758359.04
6	91783.25	1758373.82
7	91806.54	1758387.51
8	91811.40	1758392.32
9	91828.76	1758409.49
10	91857.55	1758447.54
11	91872.43	1758453.18
12	91986.28	1758570.24
13	92019.96	1758602.63
14	92050.18	1758631.51
15	92059.90	1758640.79
16	92074.37	1758654.62
17	92089.04	1758668.64
18	92116.48	1758704.41
19	92132.00	1758710.29
20	92159.97	1758738.13
21	92180.38	1758758.46
22	92194.29	1758781.62
23	92209.21	1758796.40
24	92232.50	1758810.09

CONDUIT LAYOUT TABLE

POINT	NORTHING	EASTING
25	92244.46	1758821.93
26	92322.47	1758899.21
27	92336.28	1758922.47
28	92375.55	1758961.43
29	92415.71	1758958.94
30	92461.78	1758920.11
31	92510.63	1758935.80
32	92552.91	1758977.70
33	92557.78	1758982.53
34	92577.40	1758987.16
35	92607.47	1759027.56
36	92866.39	1759284.20
37	92883.64	1759290.87
38	92913.50	1759330.90
39	93041.33	1759452.46
40	93137.95	1759513.08
41	93211.17	1759544.81
42	93262.96	1759608.85
43	93313.90	1759671.84
44	93419.49	1759782.09
45	93443.14	1759772.37
46	93448.95	1759777.86
47	93500.68	1759781.33

CONDUIT STRUCTURES LAYOUT TABLE

POINT	NORTHING	EASTING
CAM-1	91583.74	1758176.11
CJS-1	91580.95	1758165.90
CJS-2	91858.98	1758439.40
CJS-3	92032.57	1758608.24
CJS-4	92117.90	1758696.27
CJS-5	92392.77	1758966.84
CJS-6	92491.49	1758902.01
CJS-7	92589.47	1758999.13
CJS-8	92895.72	1759302.84
CJS-9	93208.40	1759530.37
CJS-10	93429.07	1759787.18
EJS-1	91585.88	1758160.93
EJS-2	91845.49	1758435.57
EJS-3	92045.36	1758620.91
EJS-4	92104.41	1758692.44
EJS-5	92398.20	1758983.90
EJS-6	92484.80	1758917.46

CONDUIT STRUCTURES LAYOUT TABLE

POINT	NORTHING	EASTING
EJS-7	92575.28	1758996.02
EJS-8	92882.23	1759299.01
EJS-9	93197.81	1759541.05
EJS-10	93434.75	1759792.81
EJS-11	93488.79	1759847.09
EJS-12	93521.61	1759814.47
LP-1	92324.03	1758910.44
LP-2	92239.54	1758826.64
LP-3	92155.06	1758742.84
LP-4	92070.57	1758659.04
LP-5	91982.80	1758574.36
LP-6	91895.19	1758485.10
LP-7	91806.44	1758397.08
LP-8	91717.69	1758309.05
LP-9	91623.28	1758215.50
NM-1	92064.52	1758635.68
NM-2	93268.07	1759603.30

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

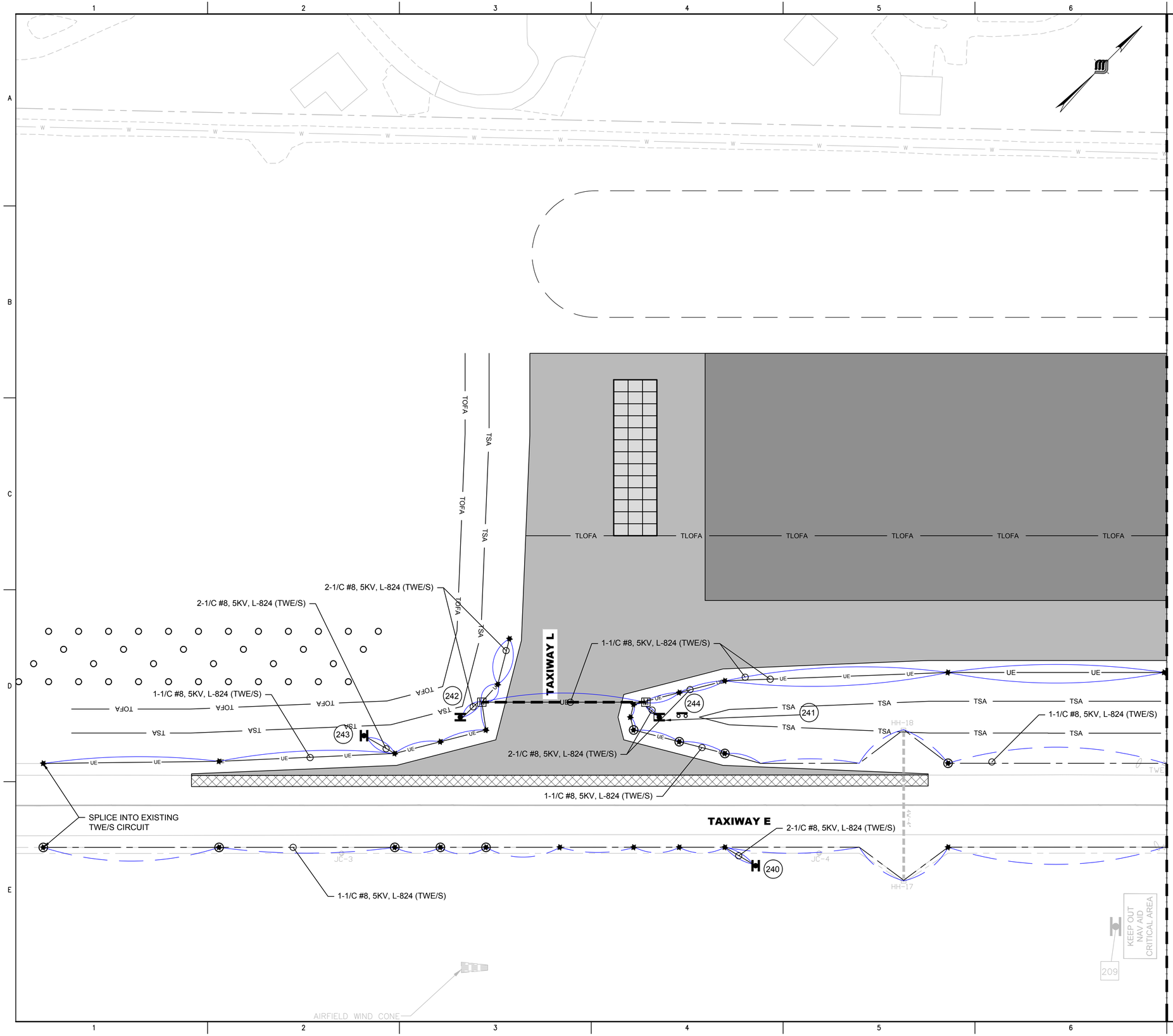
ELECTRICAL STRUCTURE SCHEDULE

DRAWING NUMBER

EL-09

53 OF 72

K:\NANTUCKET\1-18706.07 ACK-SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-ELEC.DWG



LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- PROPOSED AIRFIELD GUIDANCE SIGN
- EXISTING AIRFIELD GUIDANCE SIGN
- PROPOSED NON-ENCASED ELECTRICAL DUCT BANK WITH NEW CABLE
- UE — PROPOSED NON-ENCASED ELECTRICAL DUCT BANK WITH NEW CABLE
- EXISTING NON-ENCASED ELECTRICAL DUCT BANK
- PROPOSED CONCRETE ENCASED DUCT BANK
- EXISTING CONCRETE ENCASED DUCT BANK
- PROPOSED CIRCUIT
- EXISTING CIRCUIT
- PROPOSED TAXIWAY EDGE LIGHT
- EXISTING TAXIWAY EDGE LIGHT
- M — PROPOSED ELECTRICAL JUNCTION STRUCTURE

NOTES:

1. CONTRACTOR TO LAYOUT PROPOSED LIGHTS AND SIGNS FOR ENGINEER REVIEW PRIOR TO INSTALLATION.
2. PRIOR TO WORK ON ANY ELECTRICAL CIRCUITS, THE CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE ELECTRICAL CIRCUIT. IF PART OF THE ELECTRICAL CIRCUIT LOCK-OUT/TAG-OUT IS REQUIRED TO POWER ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL DISCONNECT THE PORTION TO BE REMOVED AND RE-ENERGIZE THE PORTION TO REMAIN.

0 40 80 120 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS
PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

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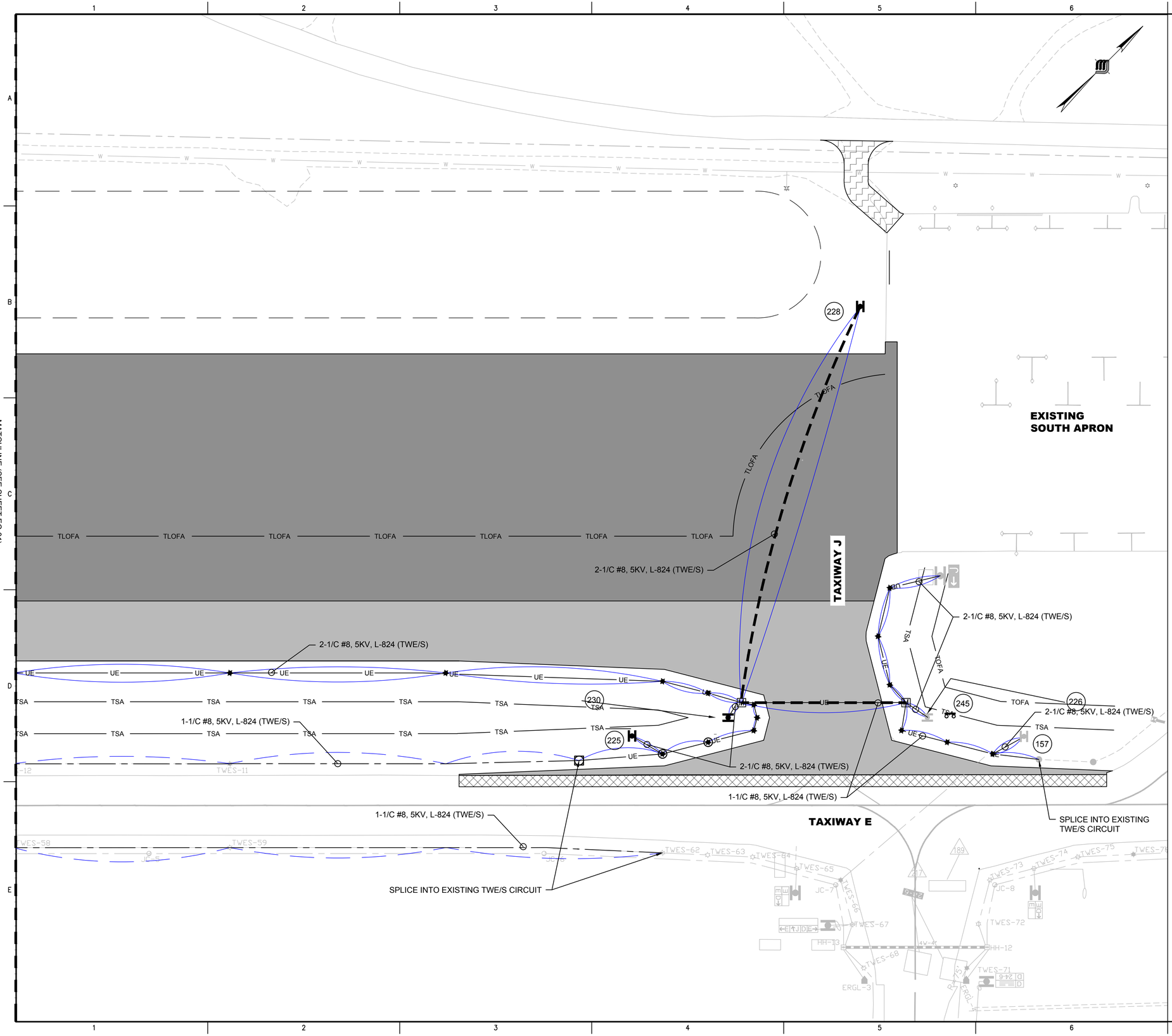
DRAWING TITLE
ELECTRICAL CIRCUITING PLAN (SHEET 1 OF 2)

DRAWING NUMBER
EC-01
54 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-ELEC - CIRCUIT.DWG



LEGEND

- TSA — TAXILANE SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TLOFA — TAXILANE OBJECT FREE AREA
- PROPOSED AIRFIELD GUIDANCE SIGN
- EXISTING AIRFIELD GUIDANCE SIGN
- PROPOSED NON-ENCASED ELECTRICAL DUCT BANK WITH NEW CABLE
- UE — PROPOSED NON-ENCASED ELECTRICAL DUCT BANK WITH NEW CABLE
- EXISTING NON-ENCASED ELECTRICAL DUCT BANK
- PROPOSED CONCRETE ENCASED DUCT BANK
- EXISTING CONCRETE ENCASED DUCT BANK
- PROPOSED CIRCUIT
- EXISTING CIRCUIT
- PROPOSED TAXIWAY EDGE LIGHT
- EXISTING TAXIWAY EDGE LIGHT
- M — PROPOSED ELECTRICAL JUNCTION STRUCTURE

NOTES:

1. CONTRACTOR TO LAYOUT PROPOSED LIGHTS AND SIGNS FOR ENGINEER REVIEW PRIOR TO INSTALLATION.
2. PRIOR TO WORK ON ANY ELECTRICAL CIRCUITS, THE CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE ELECTRICAL CIRCUIT. IF PART OF THE ELECTRICAL CIRCUIT LOCK-OUT/TAG-OUT IS REQUIRED TO POWER ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL DISCONNECT THE PORTION TO BE REMOVED AND RE-ENERGIZE THE PORTION TO REMAIN.

0 40 80 120 FT
SCALE

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
PROJECT: SOUTH APRON EXPANSION
NANTUCKET, MASSACHUSETTS

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	1"=40'
DATE	SEPTEMBER 2023
PROJECT	18706.07

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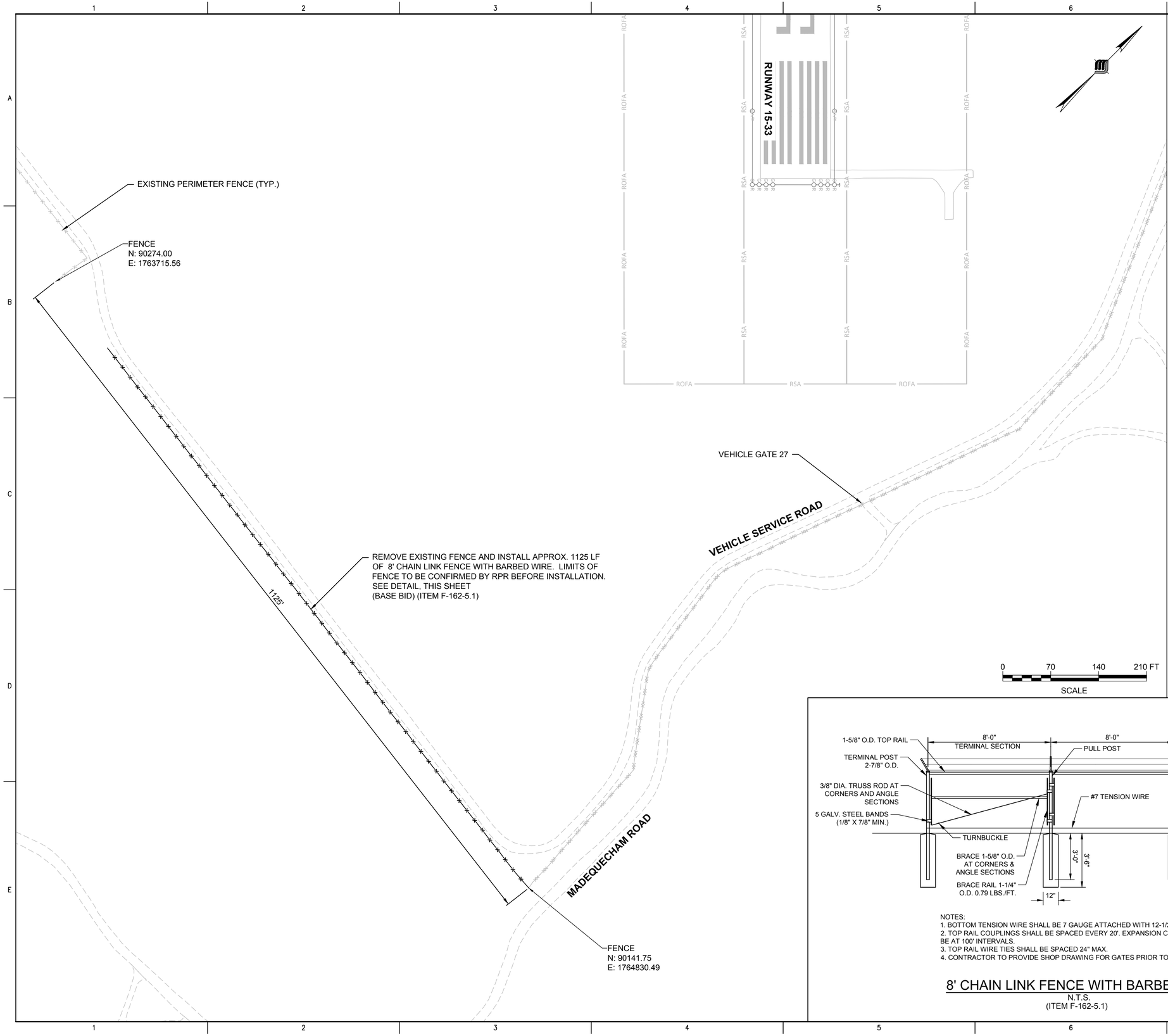
DRAWING TITLE
ELECTRICAL CIRCUITING PLAN (SHEET 2 OF 2)

DRAWING NUMBER
EC-02
55 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\WORKING\SHEET FILES\18706.07-ELEC - CIRCUIT.DWG

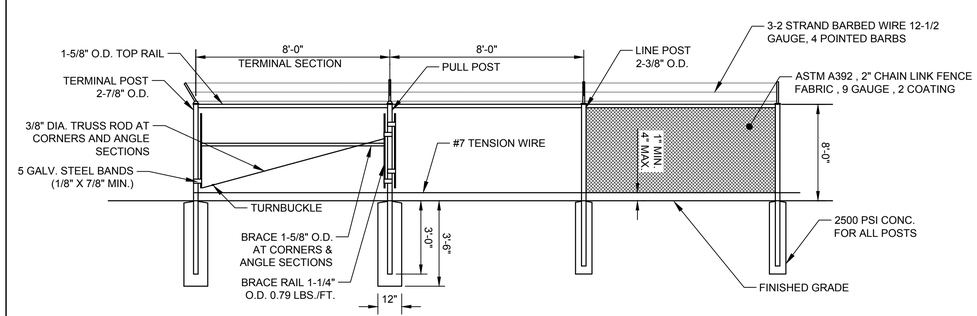


LEGEND

- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- PROPOSED PERIMETER FENCE
- EXISTING PERIMETER FENCE

NOTES:

1. CONTRACTOR SHALL ENSURE THERE ARE NO GAPS IN FENCING WHILE THE WORK SITE IS UNATTENDED
2. SEE SHEETS CS-08 AND CS-11 FOR PHASING, NOTES AND DETAILS.



NOTES:
1. BOTTOM TENSION WIRE SHALL BE 7 GAUGE ATTACHED WITH 12-1/2 GAUGE HOG RINGS, 12' C-C.
2. TOP RAIL COUPLINGS SHALL BE SPACED EVERY 20'. EXPANSION COUPLINGS SHALL BE AT 100' INTERVALS.
3. TOP RAIL WIRE TIES SHALL BE SPACED 24" MAX.
4. CONTRACTOR TO PROVIDE SHOP DRAWING FOR GATES PRIOR TO BEGINNING WORK

8' CHAIN LINK FENCE WITH BARBED WIRE

N.T.S.
(ITEM F-162-5.1)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	VARIES
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

FENCING PLAN

DRAWING NUMBER

FP-01

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07 FENC.DWG

NOTES:
1. CHAIN LINK FENCE FABRIC SHALL BE 9-GAUGE BLACK THERMALLY FUSED AND BONDED POLYVINYL CHLORIDE (PVC)-COATED STEEL WIRE IN A 2-INCH MESH CONFORMING TO THE REQUIREMENTS OF ASTM F668, CLASS 2B.

2. BARBED WIRE SHALL BE 2-STRAND 12-1/2 GAUGE ZINC-COATED WIRE WITH 4-POINT BARBS AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A121, CLASS 3, CHAIN LINK FENCE GRADE.

3. GALVANIZED TUBULAR STEEL PIPE SHALL CONFORM TO THE REQUIREMENTS OF GROUP IA (SCHEDULE 40), COATINGS CONFORMING TO TYPE A, OR GROUP IC (HIGH STRENGTH PIPE), EXTERNAL COATING TYPE B, AND INTERNAL COATING TYPE B OR D.

4. POSTS, RAILS, AND BRACES SHALL DEMONSTRATE THE ABILITY TO WITHSTAND TESTING IN SALT SPRAY IN ACCORDANCE WITH ASTM B117 AS FOLLOWS:

   4.1. EXTERNAL: 1,000 HOURS WITH A MAXIMUM OF 5% RED RUST.
   4.2. INTERNAL: 650 HOURS WITH A MAXIMUM OF 5% RED RUST.

5. WIRE TIES FOR USE IN CONJUNCTION WITH A GIVEN TYPE OF FABRIC SHALL BE OF THE SAME MATERIAL AND COATING WEIGHT IDENTIFIED WITH THE FABRIC TYPE. TENSION WIRE SHALL BE 7-GAUGE MARCELLED STEEL WIRE WITH THE SAME COATING AS THE FABRIC TYPE AND SHALL CONFORM TO ASTM A824.

6. ALL STEEL FITTINGS AND HARDWARE SHALL BE PROTECTED WITH A ZINC COATING APPLIED IN CONFORMANCE WITH ASTM A153. ALL NUTS, BOLTS, AND WASHERS SHALL BE STAINLESS STEEL. ALL STAINLESS STEEL HARDWARE SHALL BE PAINTED OR POWDER COATED TO MATCH FABRIC.

7. POSTS, INCLUDING ENCASEMENT SHALL BE SET 6" INSIDE THE PROPERTY LINE SO THAT FENCING PLACED ON THE PROPERTY SIDE OF POSTS WILL AS NEAR BY ON THE PROPERTY LINE AS POSSIBLE. WHEN DIRECTED BY THE ENGINEER THE FABRIC SHALL BE PLACED ON THE OPPOSITE SIDE OF THE POSTS SO THAT THE FABRIC CAN BE PULLED TIGHT AGAINST THE POSTS.

8. POSTS IN ROCK; WHERE SUBSTANTIAL ROCK IS ENCOUNTERED, A HOLE 2" LARGER IN DIAMETER THAN THE POST, AND 12" MINIMUM DEPTH FOR LINE POSTS, AND 18" MINIMUM FOR ALL OTHER POSTS SHALL BE MADE. AFTER INSERTING THE POSTS, THE HOLES SHALL BE BACKFILLED WITH A HAND MIXED MORTAR CONSISTING OF ONE PART PORTLAND CEMENT TWO PARTS FINE AGGREGATE MIXED TO A PLASTIC CONSISTENCY SHOWING NO SIGNS OF FREE WATER. THE HAND MIXING AND CONSOLIDATION OF THE MORTAR SHALL BE PERFORMED IN A MANNER APPROVED BY THE ENGINEER.

9. CORNER POSTS SHALL BE USED AT SHARP BREAKS IN VERTICAL GRADE AND CHANGES IN HORIZONTAL ALIGNMENT OF 15° AND OVER. PULL POSTS SHALL BE USED EVERY 500' ON STRAIGHT RUNS OF CHAIN LINK FENCE OR AS DIRECTED BY THE ENGINEER.

10. THE CONTRACTOR SHALL SUBMIT THE DETAILS FOR THE CHAIN LINK FENCE AND PLANS TO ERECT TO THE ENGINEER. NO FENCE SHALL BE ERECTED PRIOR TO THE APPROVAL OF THE VARIOUS DETAILS.

11. FENCE SHALL BE GROUNDED EVERY 500' AS SPECIFIED IN F-162-3.7 OF THE CONTRACT DOCUMENTS.

POST AND RAIL SCHEDULE

USE	SECTION	STEEL		
		NOM. SIZE (INCHES)	O.D. (INCHES)	WEIGHT (LBS/FT)
END, CORNER AND INTERMEDIATE POSTS FOR FENCES OVER 6'	CLASS A SCHEDULE 40 PIPE	2 1/2	2.88	5.79
BRACE RAILS FOR FENCES 6' AND OVER	CLASS A SCHEDULE 40 PIPE	1 1/4	1.66	2.27
TOP RAIL	CLASS A SCHEDULE 40 PIPE	1 1/4	1.66	2.27
LINE POSTS FOR FENCES GREATER THAN 6' AND EQUAL TO OR LESS THAN 8'	CLASS A SCHEDULE 40 PIPE	2	2.38	3.65
GATE POSTS	CLASS A SCHEDULE 40 PIPE	4	4.50	10.79

NOTES:
1. SIGNS SHALL BE INSTALLED EVERY 250' ON PROPOSED PERIMETER SECURITY FENCING AND EACH GATE.

MASSACHUSETTS AIRPORT SIGNAGE DETAIL
N.T.S.
(INCIDENTAL TO ITEM F-162-5.1)

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE
CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

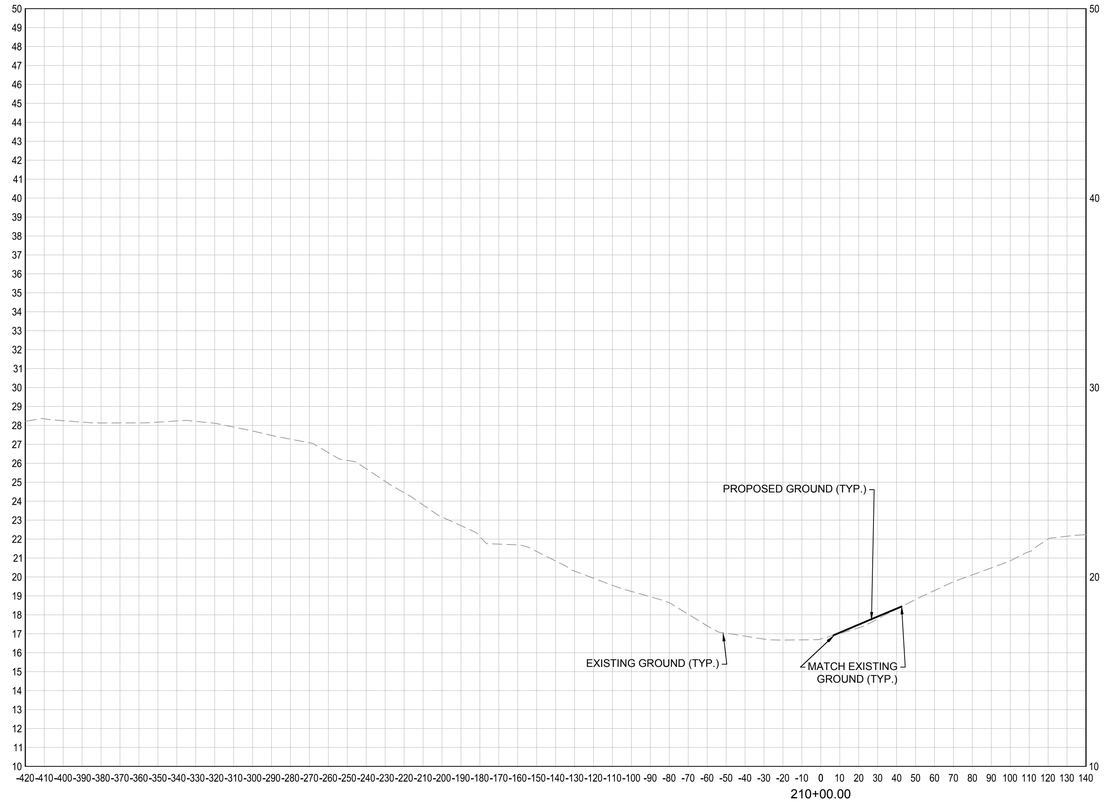
DRAWN MRB
DESIGNED DMP
CHECKED RAL
SCALE VARIES
DATE SEPTEMBER 2023
PROJECT 18706.07

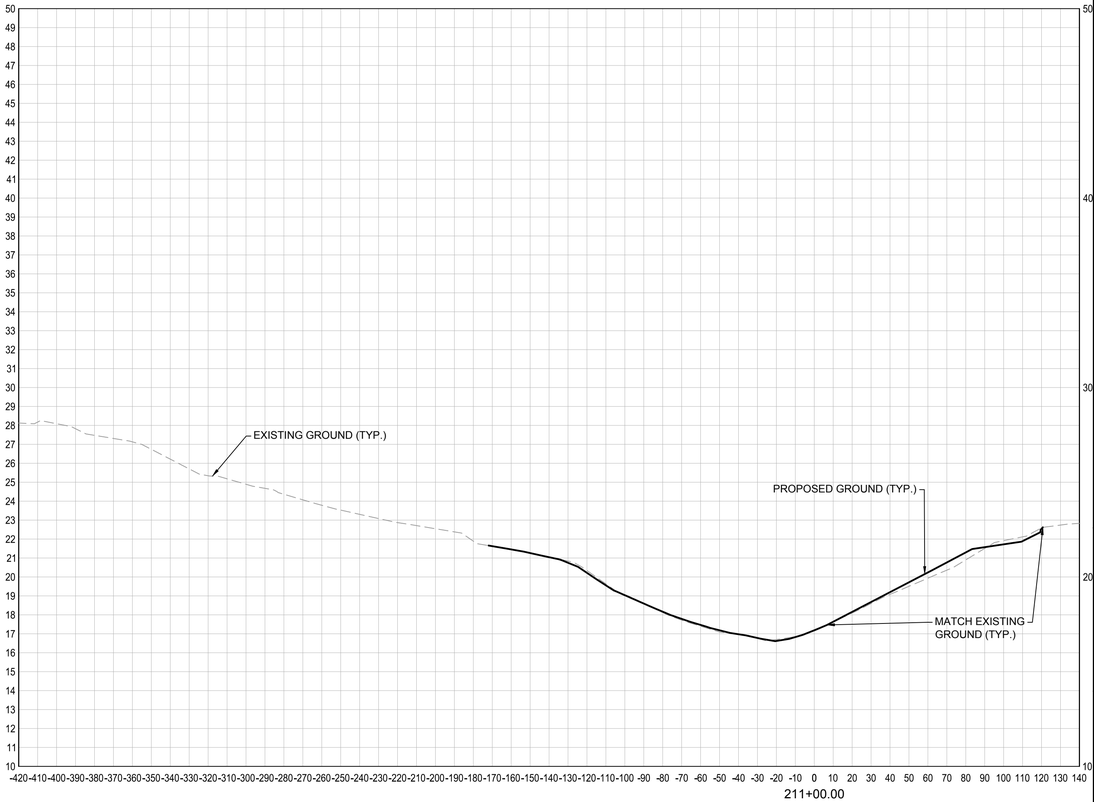
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

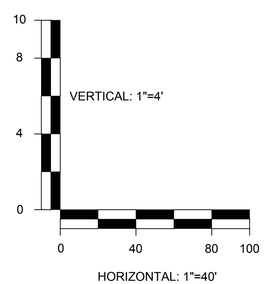
DRAWING TITLE
FENCING NOTES

DRAWING NUMBER
FP-02
57 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07 FENC.DWG







NOTE:
1. CROSS SECTIONS DO NOT REFLECT PAVEMENT TRANSITION REQUIREMENTS. REFER TO TYPICAL SECTIONS ON SHEETS TS–01 THROUGH TS–03 FOR PAVEMENT TRANSITION AND WIDENING DETAILS
2. IN THE EVENT FILL MATERIAL IS REQUIRED TO MEET PROPOSED GRADES, IT SHALL CONFORM TO AND BE INCIDENTAL TO ITEM P–152–4.1A

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

CROSS SECTIONS (SHEET 1 OF 10)

DRAWING NUMBER

XS-01

58 OF 72

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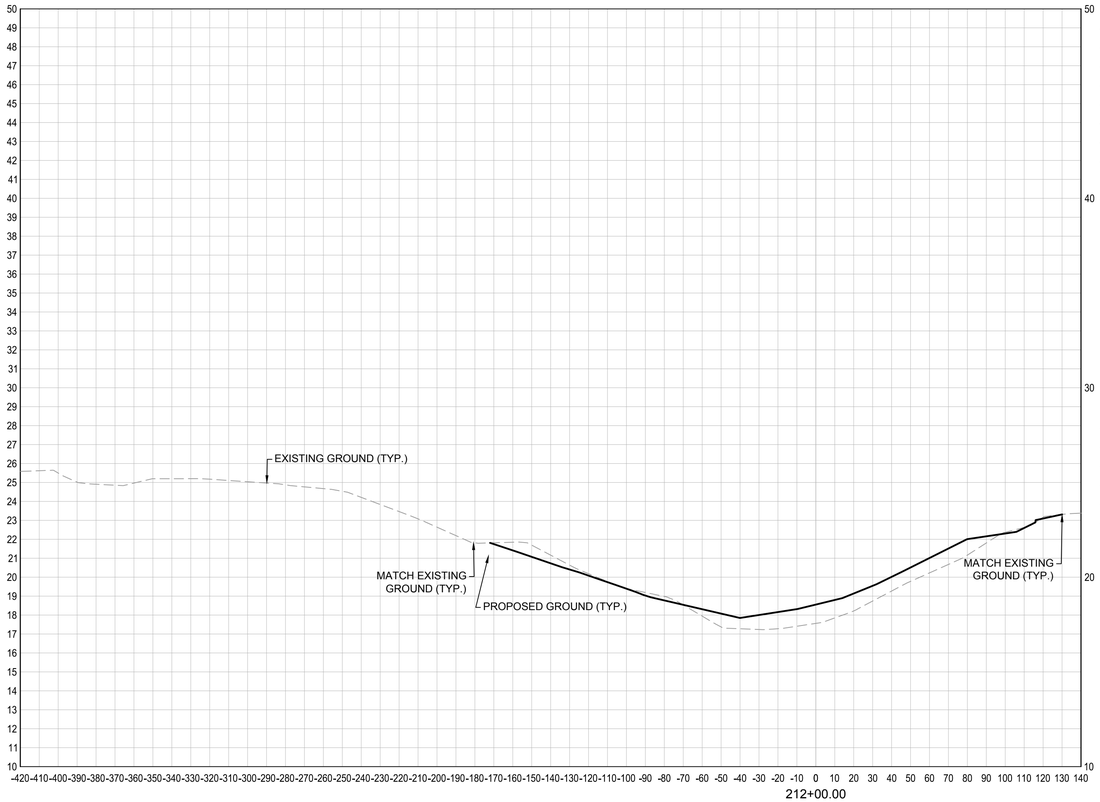

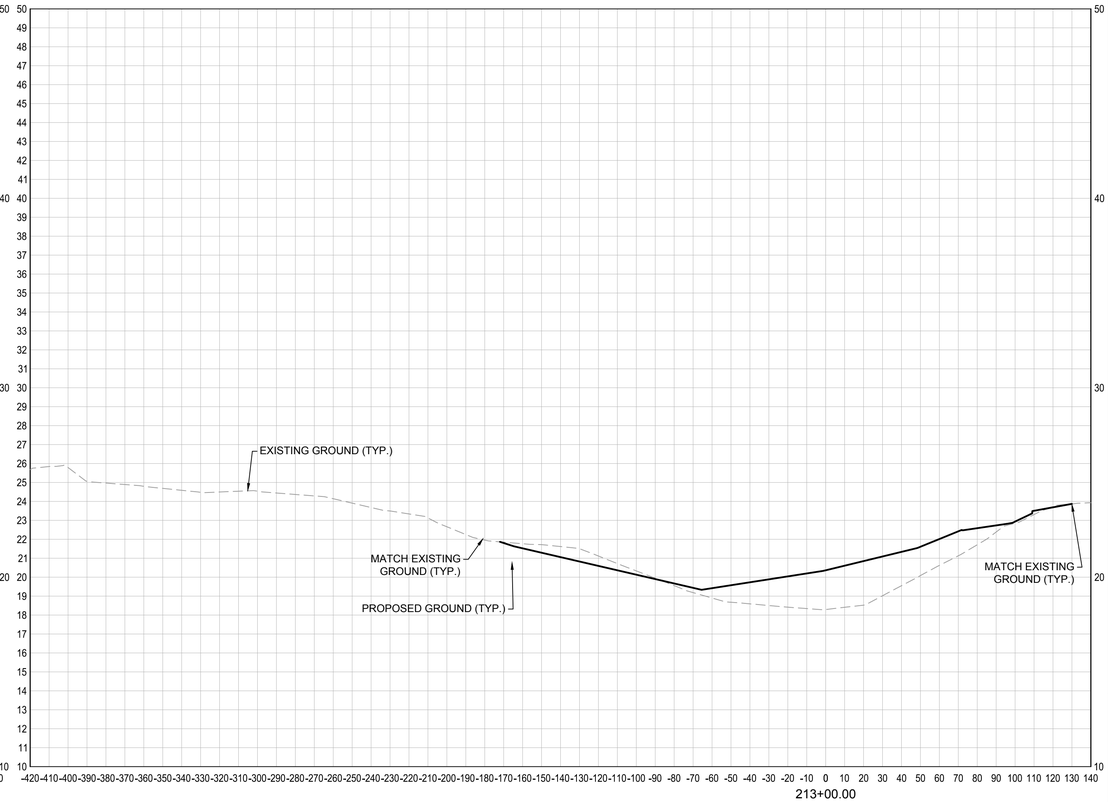

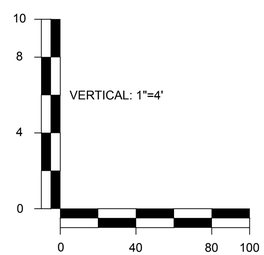

NOTE:
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2. IN THE EVENT FILL MATERIAL IS REQUIRED TO MEET PROPOSED GRADES, IT SHALL CONFORM TO AND BE INCIDENTAL TO ITEM P-152-4.1A

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

CROSS SECTIONS (SHEET 2 OF 10)

DRAWING NUMBER

XS-02

59 OF 72

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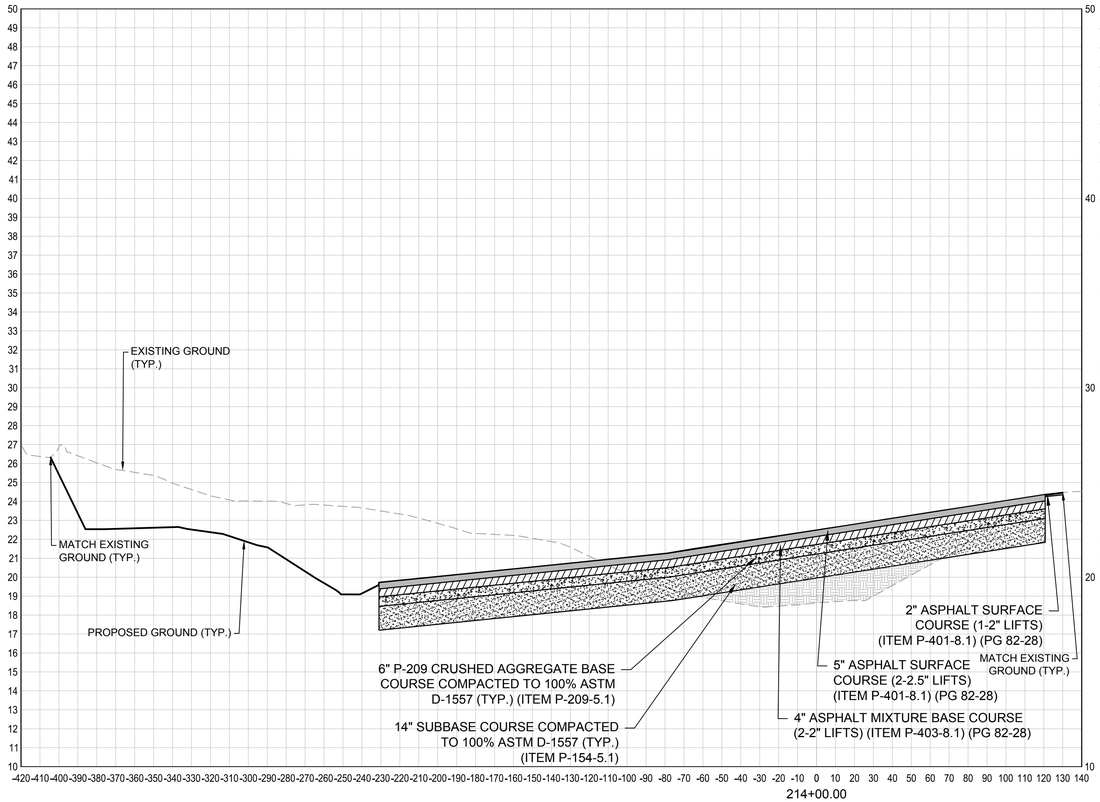

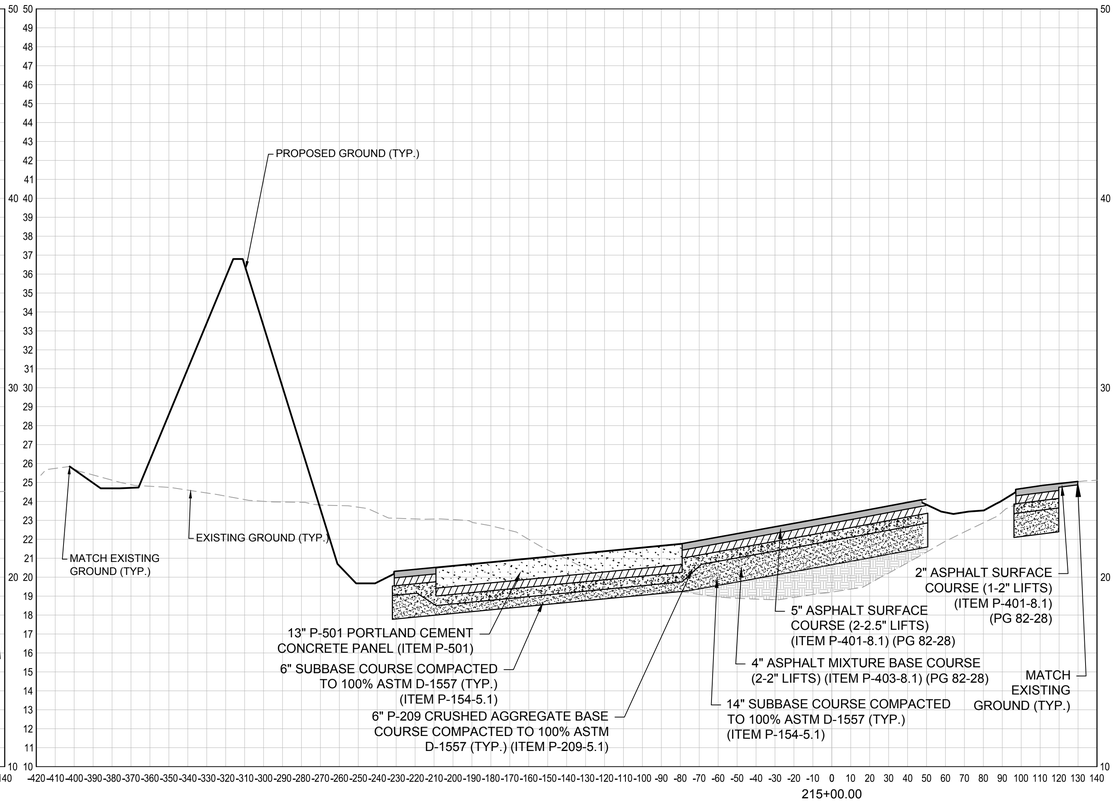

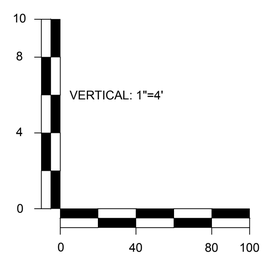

NOTE:

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2. IN THE EVENT FILL MATERIAL IS REQUIRED TO MEET PROPOSED GRADES, IT SHALL CONFORM TO AND BE INCIDENTAL TO ITEM P–152–4.1A

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

CROSS SECTIONS (SHEET 3 OF 10)

DRAWING NUMBER

XS-03

60 OF 72

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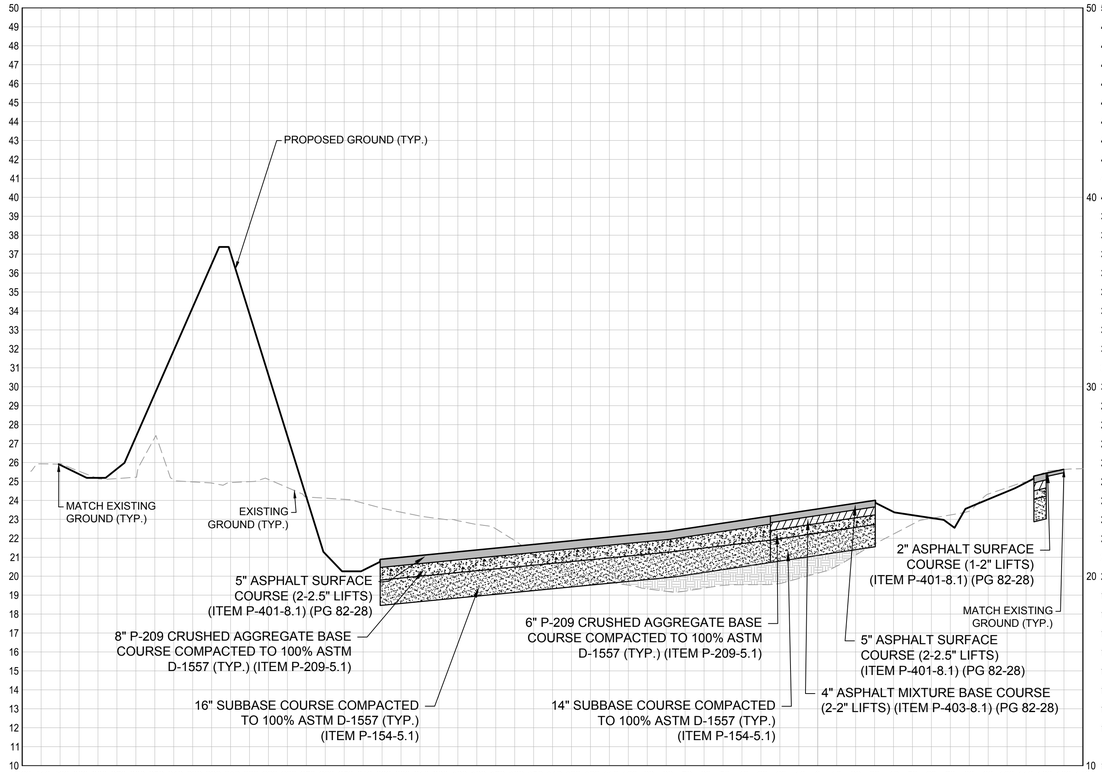
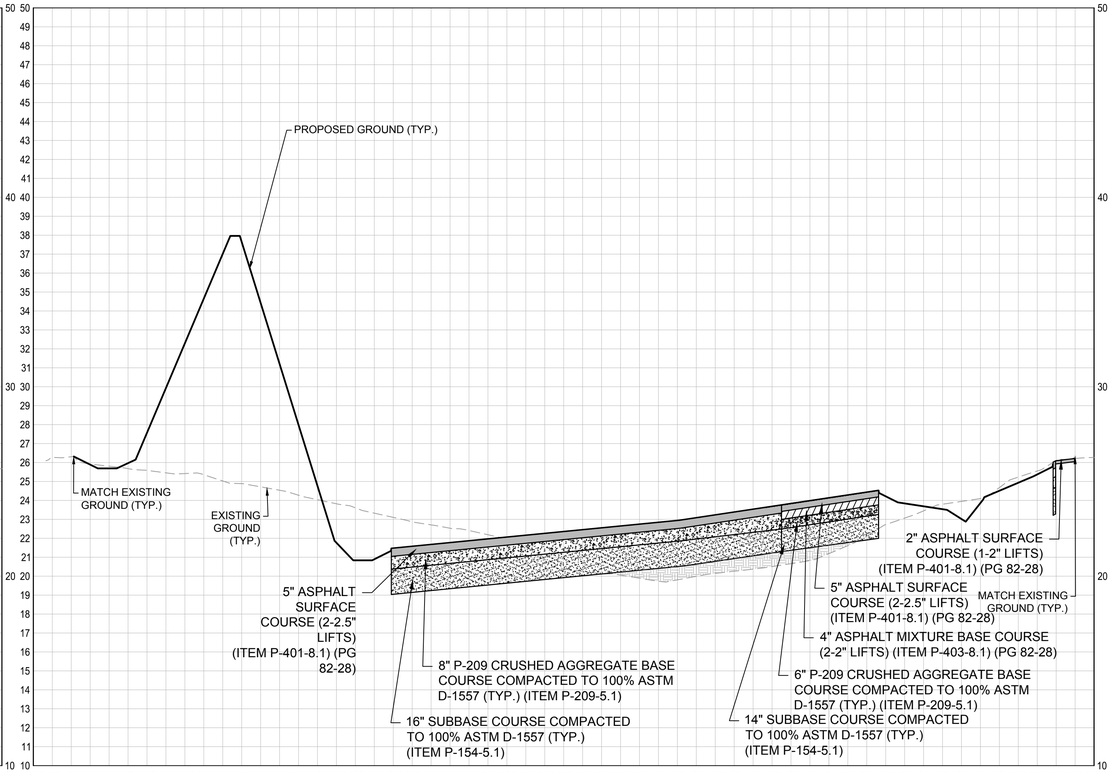

PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
2" ASPHALT SURFACE COURSE (1-2" LIFTS) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
216+00.00


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
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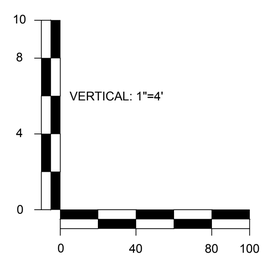
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
2" ASPHALT SURFACE COURSE (1-2" LIFTS) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
217+00.00



NOTE:
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McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

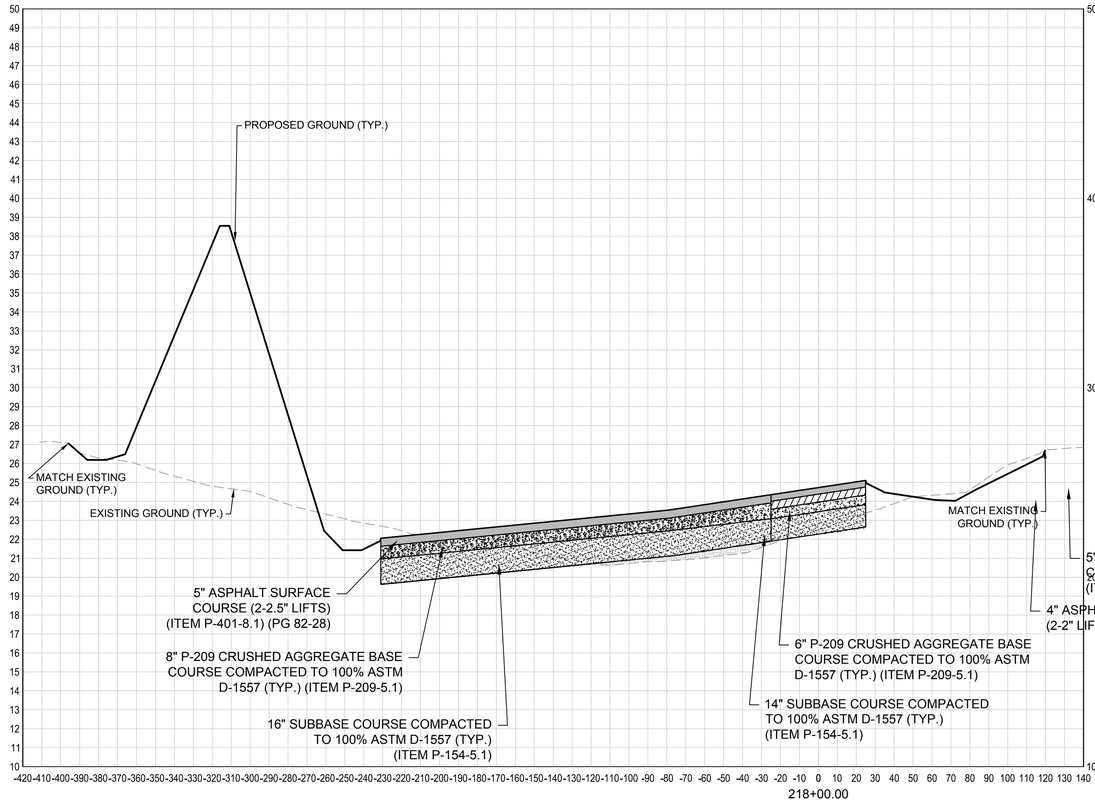
CROSS SECTIONS (SHEET 4 OF 10)

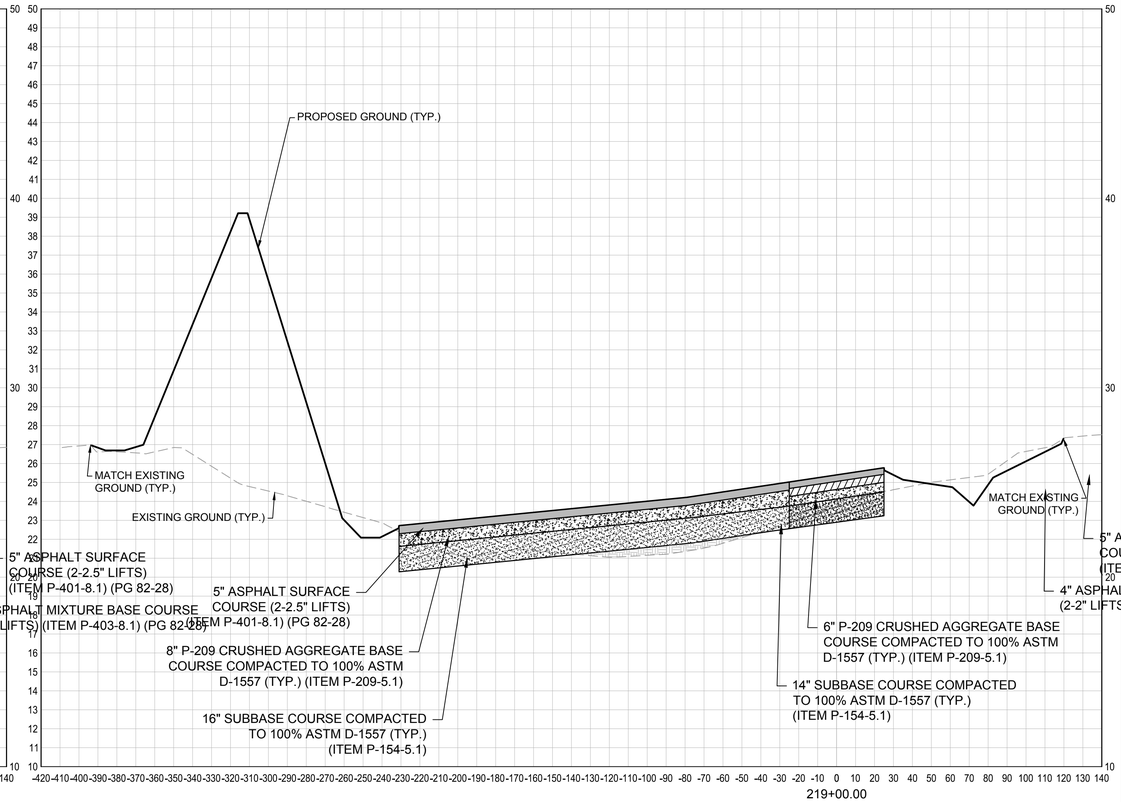
DRAWING NUMBER

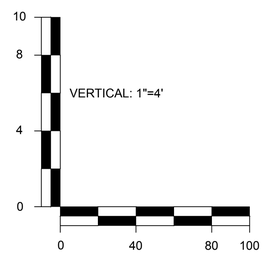
XS-04

61 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-XSEC.DWG


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
218+00.00


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
MATCH EXISTING GROUND (TYP.)
219+00.00



NOTE:
1. CROSS SECTIONS DO NOT REFLECT PAVEMENT TRANSITION REQUIREMENTS. REFER TO TYPICAL SECTIONS ON SHEETS TS-01 THROUGH TS-03 FOR PAVEMENT TRANSITION AND WIDENING DETAILS
2. IN THE EVENT FILL MATERIAL IS REQUIRED TO MEET PROPOSED GRADES, IT SHALL CONFORM TO AND BE INCIDENTAL TO ITEM P-152-4.1A

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

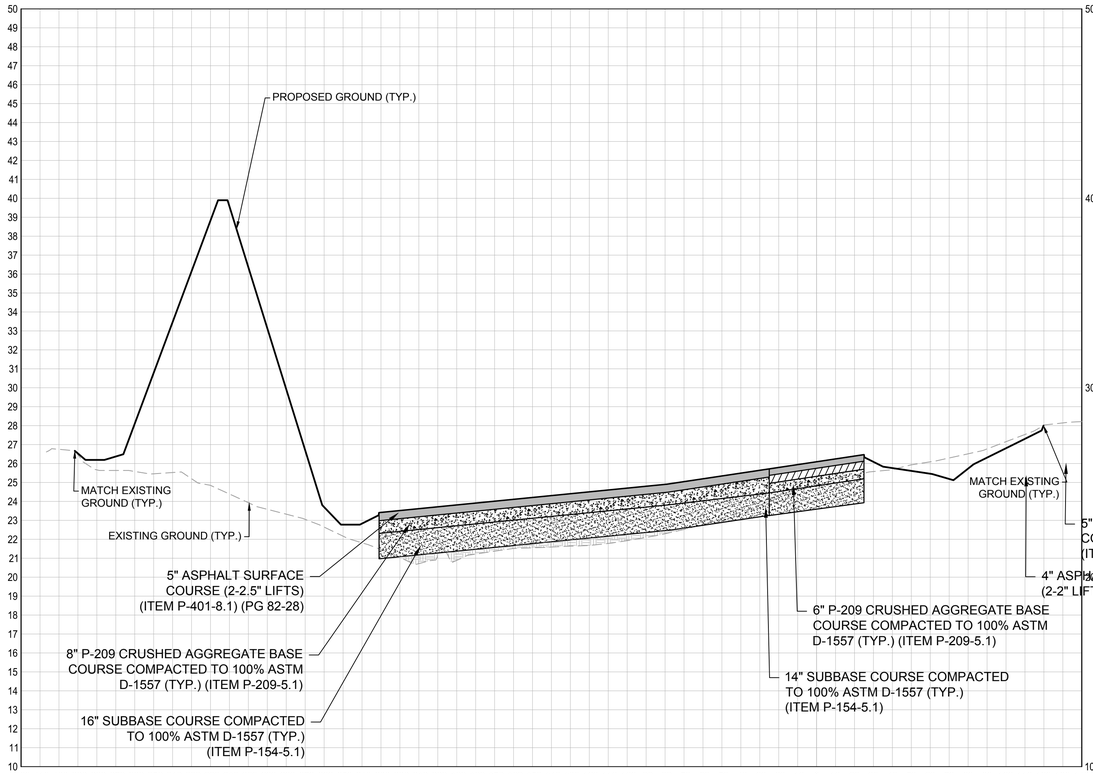
CROSS SECTIONS (SHEET 5 OF 10)

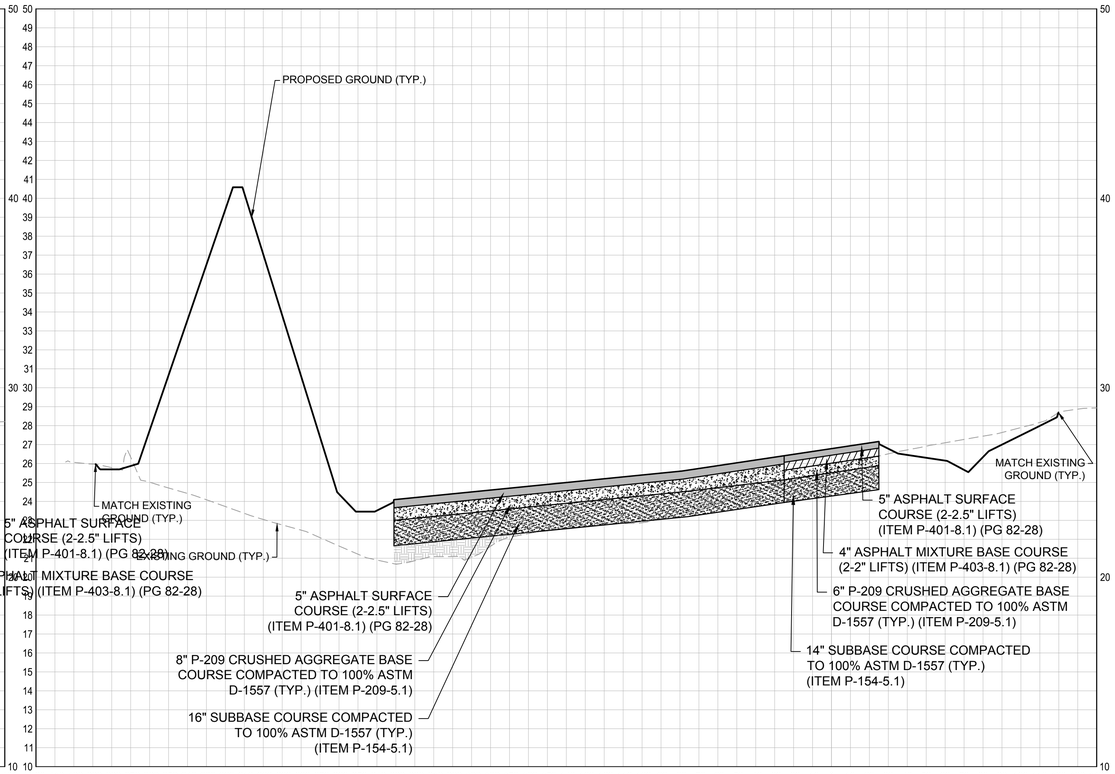
DRAWING NUMBER

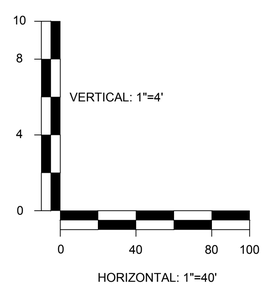
XS-05

62 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWING\SHEET FILES\18706.07-XSEC.DWG


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
220+00.00


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
221+00.00



NOTE:

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McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

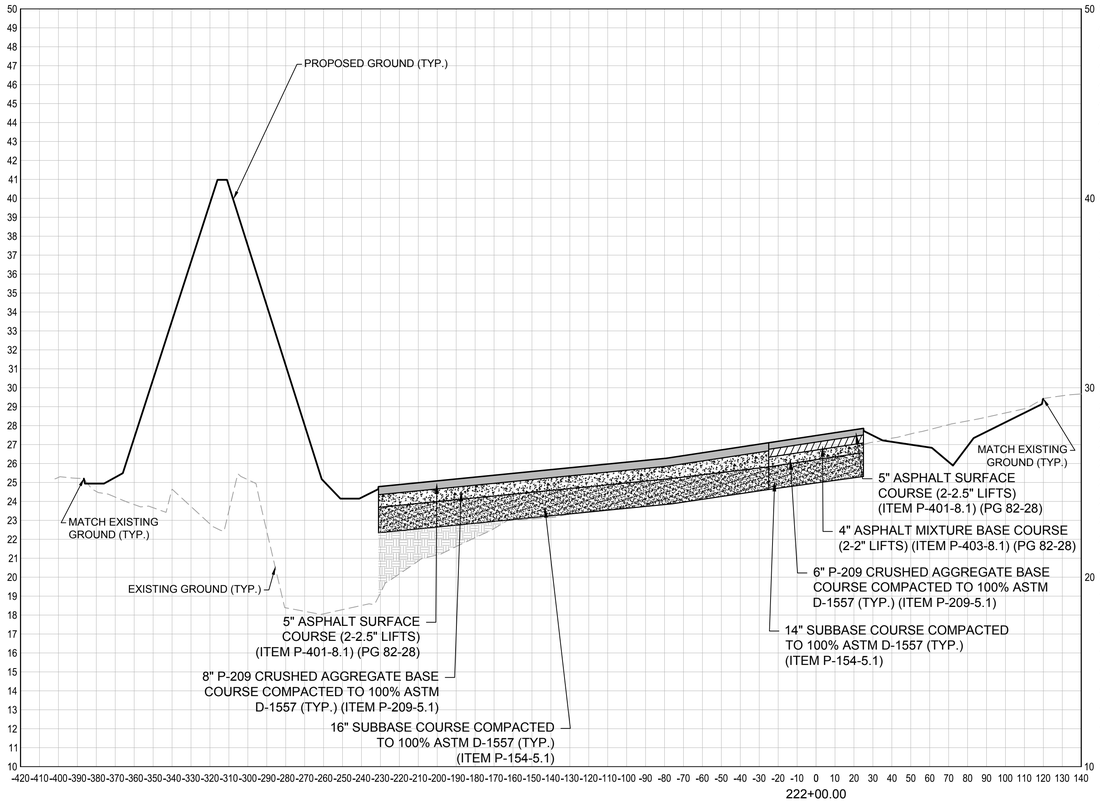
CROSS SECTIONS (SHEET 6 OF 10)

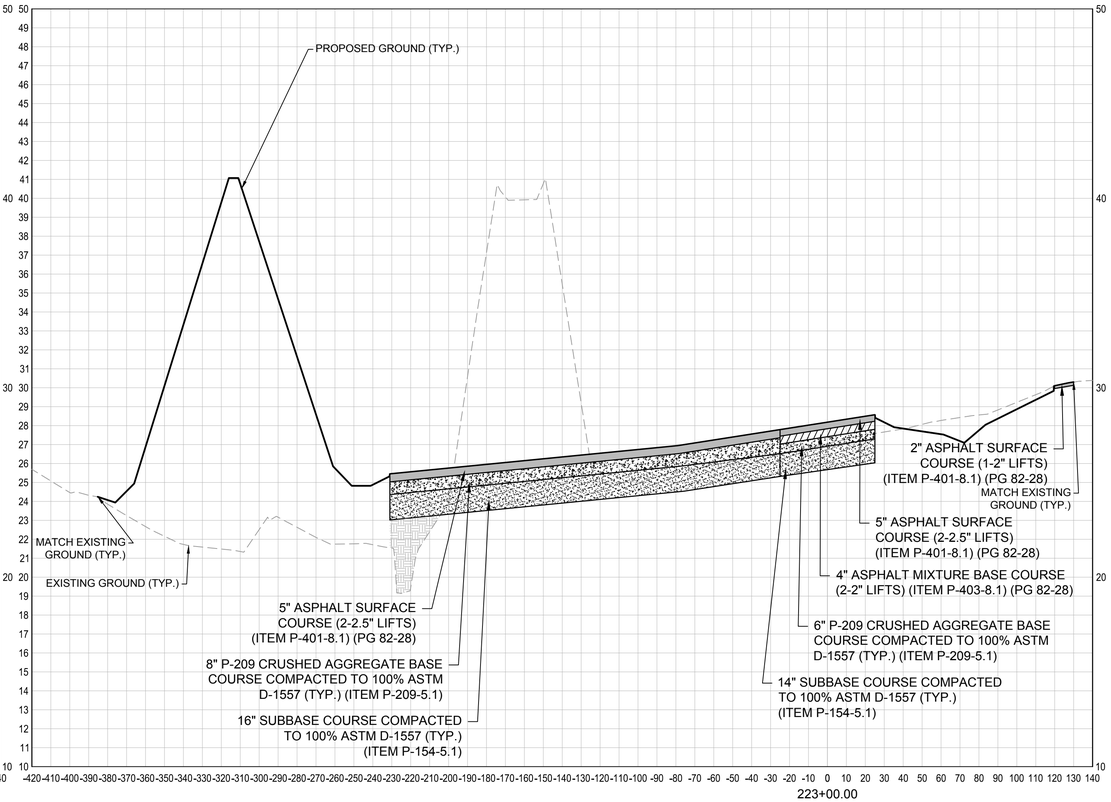
DRAWING NUMBER

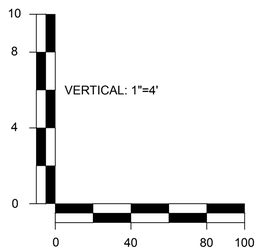
XS-06

63 OF 72

K:\NANTUCKET\1-18706.07 ACK-SOUTH APRON EXPANSION\DRAWINGS\SHEET FILES\18706.07-XSEC.DWG


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
222+00.00


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
2" ASPHALT SURFACE COURSE (1-2" LIFTS) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
223+00.00



NOTE:
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McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

CROSS SECTIONS (SHEET 7 OF 10)

DRAWING NUMBER

XS-07

64 OF 72

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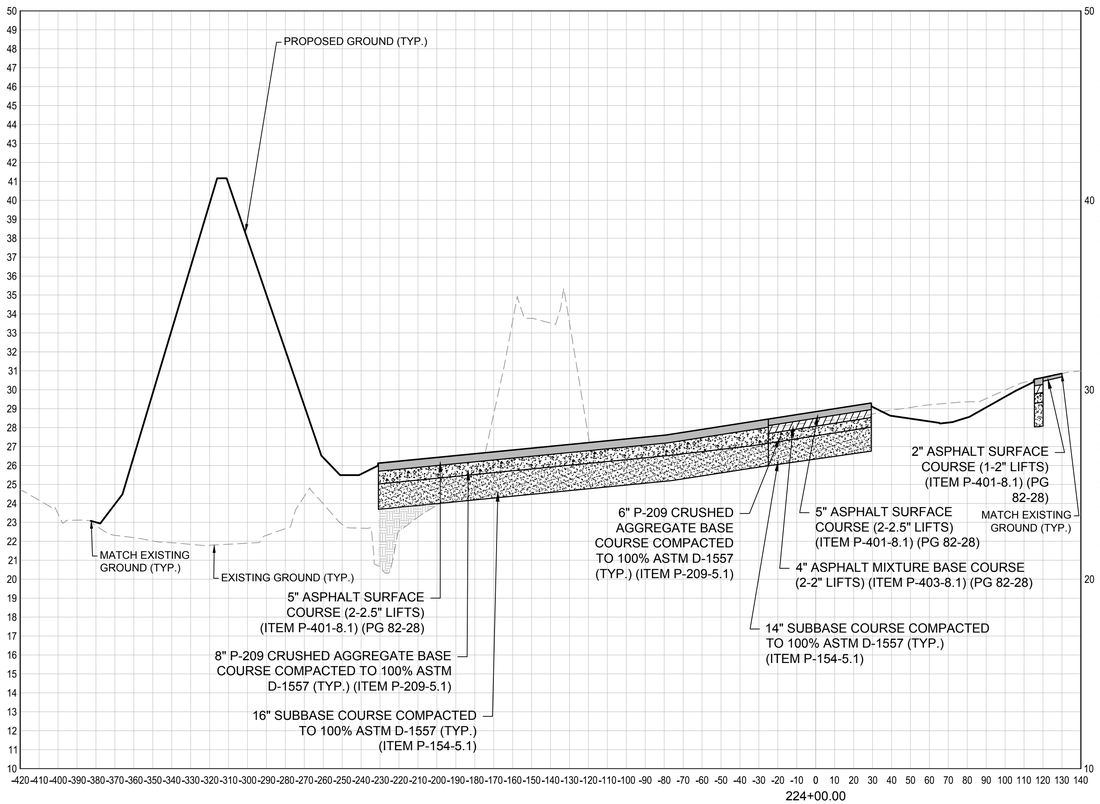
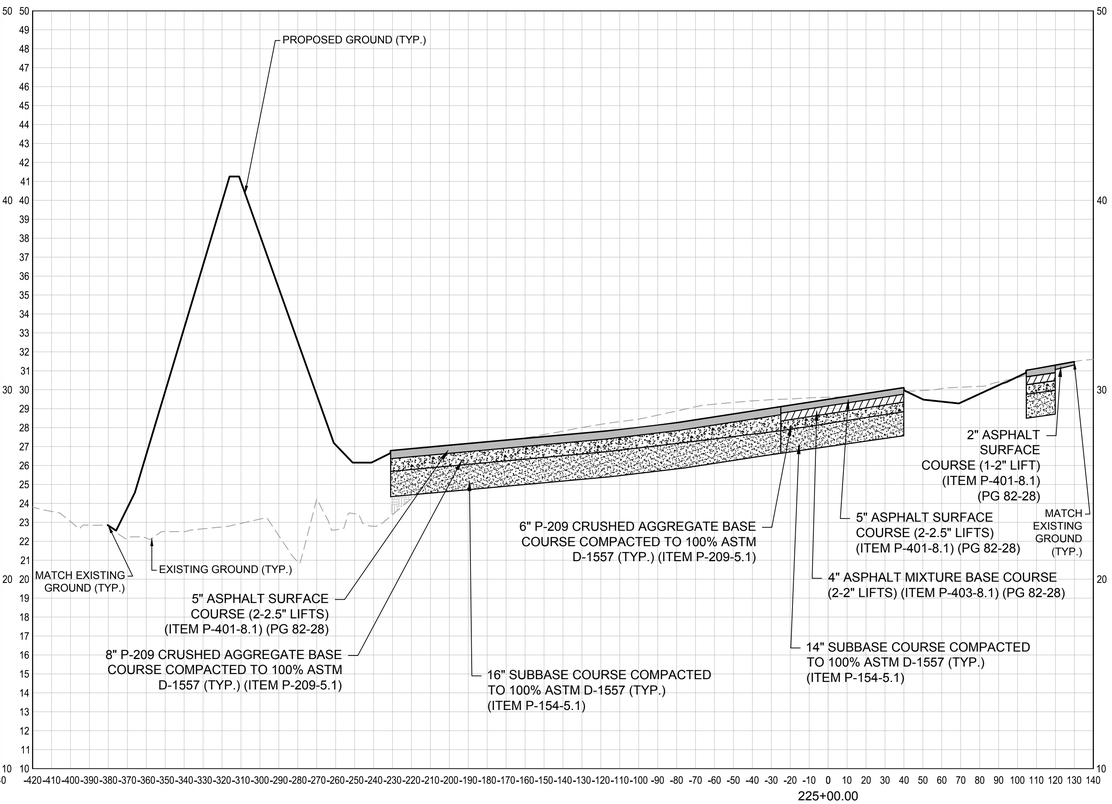
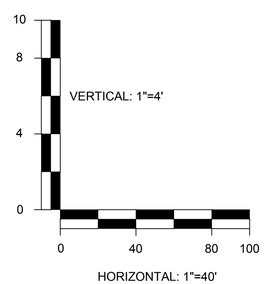

PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
2" ASPHALT SURFACE COURSE (1-2" LIFTS) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
224+00.00


PROPOSED GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
2" ASPHALT SURFACE COURSE (1-2" LIFT) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
225+00.00



NOTE:
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McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

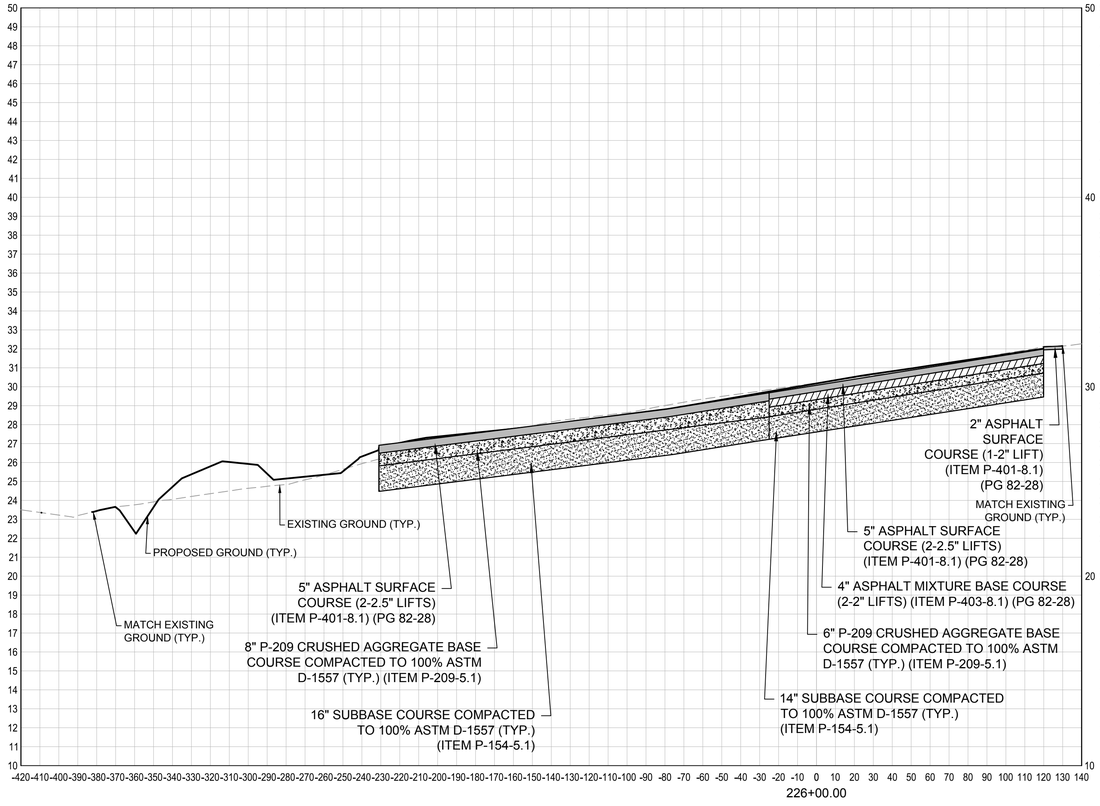
CROSS SECTIONS (SHEET 8 OF 10)

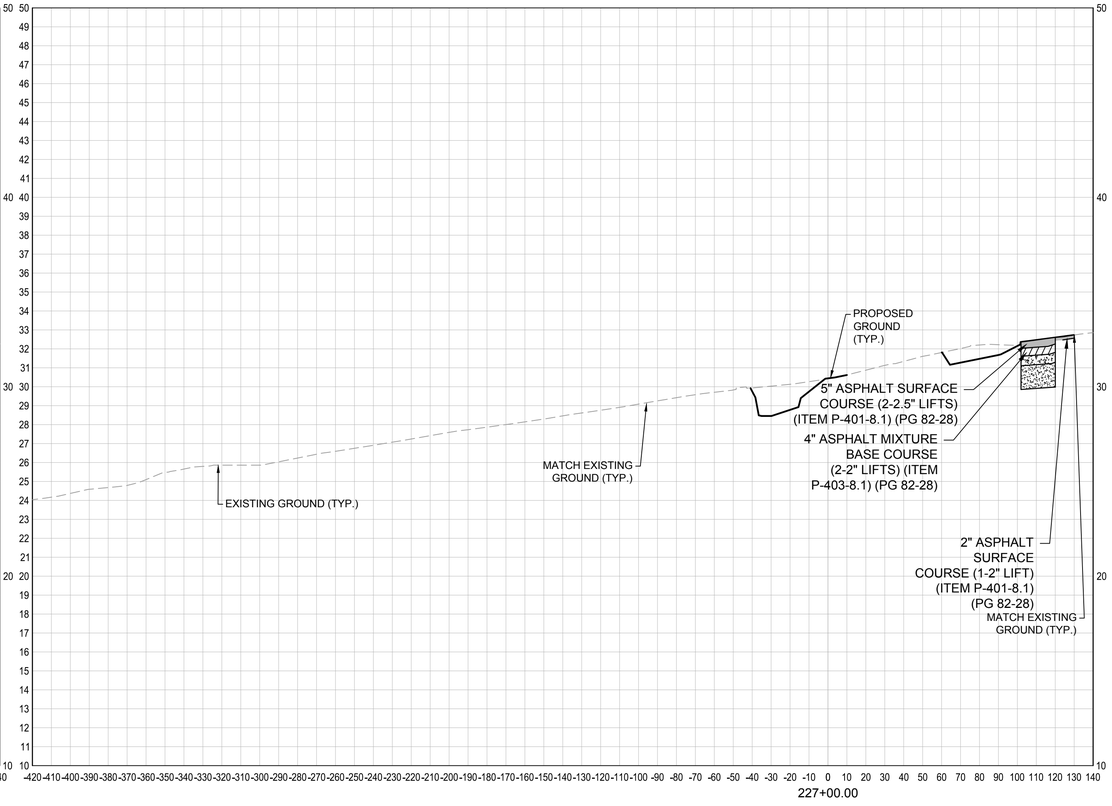
DRAWING NUMBER

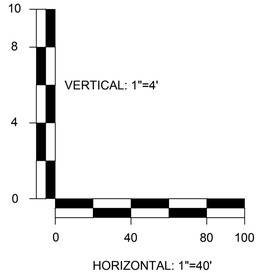
XS-08

65 OF 72

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES\18706.07-XSEC.DWG


PROPOSED GROUND (TYP.)
EXISTING GROUND (TYP.)
MATCH EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
8" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
16" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
2" ASPHALT SURFACE COURSE (1-2" LIFT) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
14" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
226+00.00


PROPOSED GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
EXISTING GROUND (TYP.)
2" ASPHALT SURFACE COURSE (1-2" LIFT) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
227+00.00



NOTE:
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McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

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DRAWING TITLE

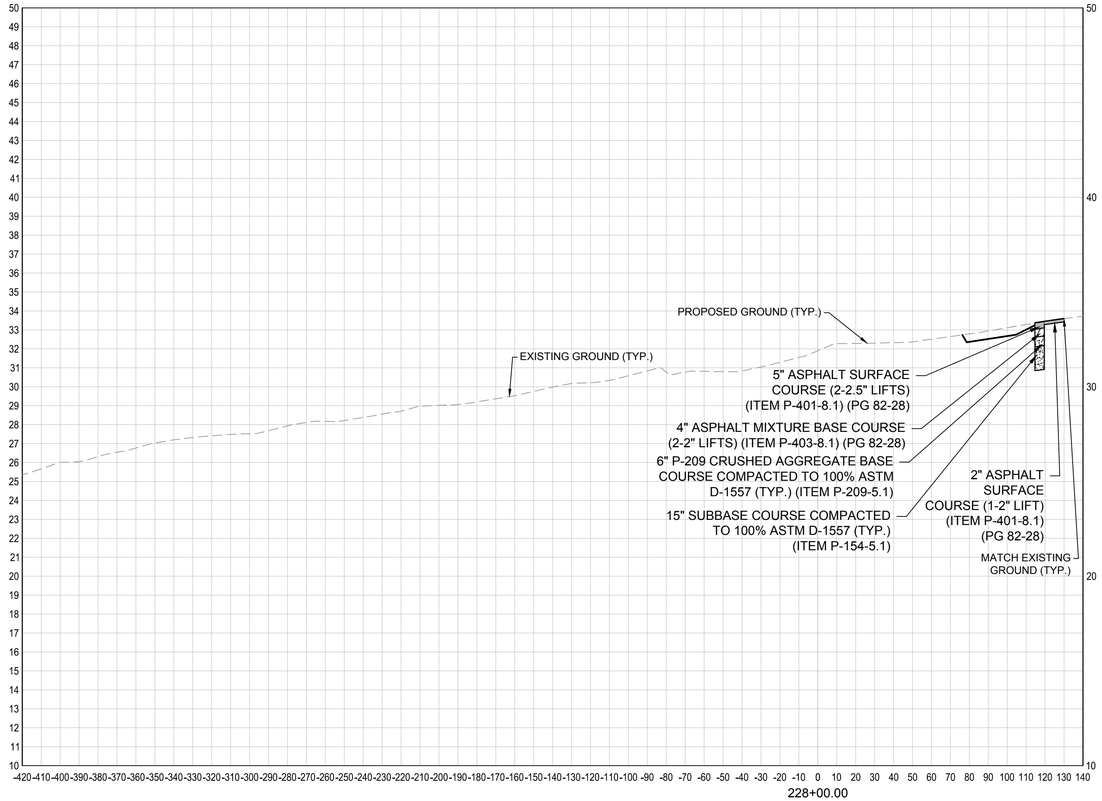
CROSS SECTIONS (SHEET 9 OF 10)

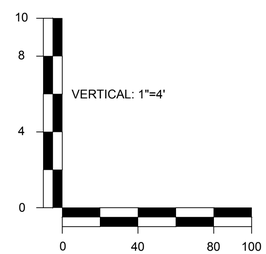
DRAWING NUMBER

XS-09

66 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWS\DRAWINGS\SHEET FILES\18706.07-XSEC.DWG


PROPOSED GROUND (TYP.)
EXISTING GROUND (TYP.)
5" ASPHALT SURFACE COURSE (2-2.5" LIFTS) (ITEM P-401-8.1) (PG 82-28)
4" ASPHALT MIXTURE BASE COURSE (2-2" LIFTS) (ITEM P-403-8.1) (PG 82-28)
6" P-209 CRUSHED AGGREGATE BASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-209-5.1)
15" SUBBASE COURSE COMPACTED TO 100% ASTM D-1557 (TYP.) (ITEM P-154-5.1)
2" ASPHALT SURFACE COURSE (1-2" LIFT) (ITEM P-401-8.1) (PG 82-28)
MATCH EXISTING GROUND (TYP.)
228+00.00



NOTE:
1. CROSS SECTIONS DO NOT REFLECT PAVEMENT TRANSITION REQUIREMENTS. REFER TO TYPICAL SECTIONS ON SHEETS TS-01 THROUGH TS-03 FOR PAVEMENT TRANSITION AND WIDENING DETAILS
2. IN THE EVENT FILL MATERIAL IS REQUIRED TO MEET PROPOSED GRADES, IT SHALL CONFORM TO AND BE INCIDENTAL TO ITEM P-152-4.1A

McFarland Johnson
Engineers, Planning & Construction Administration
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: **NANTUCKET MEMORIAL AIRPORT**
NANTUCKET, MASSACHUSETTS

PROJECT: **SOUTH APRON EXPANSION**

DRAWN	MRB
DESIGNED	DMP
CHECKED	RAL
SCALE	AS SHOWN
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

CROSS SECTIONS (SHEET 10 OF 10)

DRAWING NUMBER

XS-10

K:\NANTUCKET\1-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\RAWING\SHEET FILES\18706.07-XSEC.DWG

BORING LOG

BORING NO.: B- 1
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/22	3-3-8-10			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/20	9-9-13-14			Medium dense to very dense, moist, brown to tan, fine to coarse SAND, trace sand, varying amount of gravel		
	5		3D		4-6	24/12	36-24-28-18					
			4D		6-8	24/24	16-13-12-13					
			5D		8-10	24/18	7-6-7-8					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 1

DRAFT

BORING LOG

BORING NO.: B- 3
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/23/2023
DATE FINISH: 5/23/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 22.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES: Falling head test completed in 3" casing

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/20	2-5-7-8			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, fine to coarse SAND, some gravel (FILL)		
			2D		2-4	24/18	7-7-9-9			Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5		3D		4-6	24/20	7-9-11-13					
			4D		6-8	24/16	13-11-12-14					
			5D		8-10	24/0	7-13-16-15					Infiltration Rate at 8'= 5.74 in/hr
	10		6D		10-12	24/18	13-10-10-11					
			7D		15-17	24/10	3-5-7-7					
	20		8D		20-22	24/2	6-7-9-9					
										Bottom of Exploration at 22.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 3

DRAFT

BORING LOG

BORING NO.: B- 4
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	2-10-15-12			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, fine to coarse SAND, some gravel (FILL)		
			2D		2-4	24/14	18-25-27-15			Loose to very dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		Crushed cobble in sample 2D
	5		3D		4-6	24/18	14-11-12-10					
			4D		6-8	24/20	11-10-10-9					
			5D		8-10	24/20	8-5-5-5					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 4

DRAFT

BORING LOG

BORING NO.: B- 5
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/20	3-10-9-13			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, fine to coarse SAND, some asphalt, some wood (FILL)		
			2D		2-4	24/14	8-8-8-3					
	5		3D		4-6	24/12	2-4-8-9					
			4D		6-8	24/20	6-7-11-12					
			5D		8-10	24/16	10-10-8-7					
	7.0									Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 5

DRAFT

BORING LOG

BORING NO.: B- 6
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	2-5-6-6			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, fine to coarse SAND (FILL)		
			2D		2-4	24/14	6-7-10-12			Medium dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5		3D		4-6	24/18	8-10-12-13					
			4D		6-8	24/18	11-11-10-9					
			5D		8-10	24/18	7-7-7-8					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 6

DRAFT

BORING LOG

BORING NO.: B- 7
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/23/2023
DATE FINISH: 5/23/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 22.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/8	5-13-10-8			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, fine to coarse SAND (FILL)		
			2D		2-4	24/2	10-10-12-17			Medium dense, moist, brown, silty, fine to coarse SAND		
	4.0									Loose to medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5		3D		4-6	24/16	15-13-11-11					
			4D		6-8	24/14	9-10-15-12					
			5D		8-10	24/14	4-5-7-6					
	10		6D		10-12	24/18	6-4-5-5					
	15		7D		15-17	24/18	3-3-5-5					
	20		8D		20-22	24/10	2-5-7-6					
										Bottom of Exploration at 22.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 7

DRAFT

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS
PROJECT: SOUTH APRON EXPANSION

DRAWN EHP
DESIGNED DMP
CHECKED RAL
SCALE NTS
DATE SEPTEMBER 2023
PROJECT 18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

BORING LOGS (SHEET 1 OF 5)

DRAWING NUMBER

BL-01

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23
K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\GRAW\GRAWINGS\SHEET FILES\18706.07-BORE.DWG

BORING LOG

BORING NO.: B- 9
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling; D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear; Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot; WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector; S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/20	2-5-6-6			6" TOPSOIL		
										0.5 Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/18	4-5-9-13			2.0 Medium dense to dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5		3D		4-6	24/18	15-18-14-16					
			4D		6-8	24/14	12-14-14-14					
			5D		8-10	24/20	10-8-8-8					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B- 9

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

BORING LOG

BORING NO.: B-10
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/23/2023
DATE FINISH: 5/23/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 22.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 21 ft
GENERAL NOTES: Falling head test completed in 3" casing

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling; D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear; Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot; WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector; S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/22	2-4-4-8			6" TOPSOIL		
										0.5 Loose to dense, moist to wet, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			2D		2-4	24/12	7-11-21-19					
	5		3D		4-6	24/8	16-15-14-15					
			4D		6-8	24/14	11-10-10-7					
			5D		8-10	24/8	6-8-5-6					Infiltration Rate at 8"= 5.74 in/hr
	10		6D		10-12	24/10	6-6-8-8					
	15		7D		15-17	24/6	3-5-5-5					
	20		8D		20-22	24/20	3-3-2-3				▽	
										Bottom of Exploration at 22.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-10

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

BORING LOG

BORING NO.: B-11
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling; D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear; Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot; WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector; S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/24	4-12-15-9			6" TOPSOIL		
										0.5 Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/22	8-7-6-5					
	5		3D		4-6	24/12	11-9-6-8			4.0 Medium dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			4D		6-8	24/24	8-8-12-12					
			5D		8-10	24/1	13-13-14-12					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-11

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

BORING LOG

BORING NO.: B-12
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling; D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear; Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot; WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector; S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/22	1-4-4-4			6" TOPSOIL		
										0.5 Loose to medium dense, moist, brown, silty, fine to coarse SAND (FILL)		
			2D		2-4	24/14	3-4-10-11					
	5		3D		4-6	24/16	5-6-6-6			4.0 Medium dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			4D		6-8	24/18	6-8-10-11					
			5D		8-10	24/16	6-7-6-8					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-12

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

BORING LOG

BORING NO.: B-13
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 22.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 19 ft
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling; D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear; Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot; WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector; S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/24	3-5-6-6			6" TOPSOIL		
										0.5 Medium dense, moist, brown, silty, fine to coarse SAND, trace silt (FILL)		
			2D		2-4	24/18	6-7-9-10			2.0 Very loose to medium dense, moist to wet, tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5		3D		4-6	24/20	9-14-13-14					
			4D		6-8	24/20	12-11-12-11					
			5D		8-10	24/18	9-10-9-7					
	10		6D		10-12	24/18	7-7-8-7					
	15		7D		15-17	24/14	4-3-4-3					
	20		8D		20-22	24/20	3-1-2-2				▽	
										Bottom of Exploration at 22.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-13

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

BORING LOG

BORING NO.: B-15
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling; D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear; Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot; WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector; S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	1-4-5-6			6" TOPSOIL		
										0.5 Loose, moist, brown, silty, fine to coarse SAND (FILL)		
			2D		2-4	24/14	5-6-8-9			2.0 Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5		3D		4-6	24/18	7-8-9-11					
			4D		6-8	24/18	8-9-9-9					
			5D		8-10	24/18	6-7-6-7					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-15

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\GRAW\GRAWINGS\SHEET FILES\18706.07-BORE.DWG

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS
PROJECT: SOUTH APRON EXPANSION

DRAWN EHP
DESIGNED DMP
CHECKED RAL
SCALE NTS
DATE SEPTEMBER 2023
PROJECT 18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

BORING LOGS (SHEET 2 OF 5)

DRAWING NUMBER

BL-02

BORING LOG

SWCOLE

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

BORING NO.: B-16
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** | **TOTAL DEPTH (FT):** 22.0 | **LOGGED BY:** M. Socci
DRILLING CO.: Seaboard Drilling | **DRILLER:** D. Feeley | **DRILLING METHOD:** Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | **AUGER ID/OD:** 2 1/4 in / 5 5/8 in | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic | **HAMMER WEIGHT (lbs):** 140 / 300 | **CASING ID/OD:** N/A /N/A | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 18 ft
GENERAL NOTES: Falling head test completed in 3" casing

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/2	2-8-8-13			12" TOPSOIL		
	1									1.0' Medium dense, moist, brown, silty, fine to coarse SAND, some asphalt (FILL)		
			2D		2-4	24/4	3-4-4-1			2.0' Loose to medium dense, moist to wet, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/14	2-2-3-3					
	5											
			4D		6-8	24/20	4-4-4-4					
			5D		8-10	24/14	8-15-15-16					Infiltration Rate at 8'= 4.75 in/hr
	10		6D		10-12	24/14	8-8-9-9					
											▽	
	15		7D		15-17	24/20	3-3-4-6					
	20		8D		20-22	24/22	1-1/12-1					

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-16

DRAFT

BORING LOG

SWCOLE

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

BORING NO.: B-17
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** | **TOTAL DEPTH (FT):** 10.0 | **LOGGED BY:** M. Socci
DRILLING CO.: Seaboard Drilling | **DRILLER:** D. Feeley | **DRILLING METHOD:** Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | **AUGER ID/OD:** 2 1/4 in / 5 5/8 in | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic | **HAMMER WEIGHT (lbs):** 140 / 300 | **CASING ID/OD:** N/A /N/A | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/20	4-9-19-15			6" TOPSOIL		
	1									0.5' Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/20	14-15-19-20			2.0' Medium dense to dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/20	16-16-15-17					
	5											
			4D		6-8	24/20	14-13-15-10					
			5D		8-10	24/22	7-7-6-7					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-17

DRAFT

BORING LOG

SWCOLE

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

BORING NO.: B-19
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** | **TOTAL DEPTH (FT):** 10.0 | **LOGGED BY:** M. Socci
DRILLING CO.: Seaboard Drilling | **DRILLER:** D. Feeley | **DRILLING METHOD:** Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | **AUGER ID/OD:** 2 1/4 in / 5 5/8 in | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic | **HAMMER WEIGHT (lbs):** 140 / 300 | **CASING ID/OD:** N/A /N/A | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/14	1-2-2-3			18" TOPSOIL		
	1									1.5' Loose, moist, brown, silty, fine to coarse SAND, trace gravel		
			2D		2-4	24/18	4-4-4-5					
			3D		4-6	24/10	11-18-10-8			4.0' Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
	5											
			4D		6-8	24/18	7-9-11-11					
			5D		8-10	24/20	8-9-8-8					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-19

DRAFT

BORING LOG

SWCOLE

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

BORING NO.: B-20
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** | **TOTAL DEPTH (FT):** 22.0 | **LOGGED BY:** M. Socci
DRILLING CO.: Seaboard Drilling | **DRILLER:** D. Feeley | **DRILLING METHOD:** Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | **AUGER ID/OD:** 2 1/4 in / 5 5/8 in | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic | **HAMMER WEIGHT (lbs):** 140 / 300 | **CASING ID/OD:** N/A /N/A | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 18 ft
GENERAL NOTES: Falling head test completed in 3" casing

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/16	4-8-10-11			6" TOPSOIL		
	1									0.5' Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/0	11-11-13-13			4.0' Very loose to medium dense, moist to wet, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		5-7	24/16	6-10-11-12					
	5											
			4D		7-9	24/18	9-6-6-4					
			5D		10-12	24/16	3-2-4-5					
	10											
			6D		15-17	24/18	3-4-3-3				▽	
	15											
			7D		20-22	24/24	2-1-2-2					
	20											

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-20

DRAFT

BORING LOG

SWCOLE

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

BORING NO.: B-21
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** | **TOTAL DEPTH (FT):** 22.0 | **LOGGED BY:** M. Socci
DRILLING CO.: Seaboard Drilling | **DRILLER:** D. Feeley | **DRILLING METHOD:** Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | **AUGER ID/OD:** 2 1/4 in / 5 5/8 in | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic | **HAMMER WEIGHT (lbs):** 140 / 300 | **CASING ID/OD:** N/A /N/A | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 18 ft
GENERAL NOTES: Falling head test completed in 3" casing

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/22	3-5-6-7			6" TOPSOIL		
	1									0.5' Medium dense, moist, brown, silty, fine to coarse SAND (FILL)		
			2D		2-4	24/12	8-7-9-7			2.0' Loose to medium dense, moist to wet, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/18	5-4-6-5					
	5											
			4D		6-8	24/14	6-6-9-7					
			5D		8-10	24/12	4-3-5-4					Infiltration Rate at 8'= 7.50 in/hr
	10		6D		10-12	24/18	3-4-5-6					
											▽	
	15		7D		15-17	24/22	3-3-6-4					
	20		8D		20-22	24/20	4-2-5-5					

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-21

DRAFT

BORING LOG

SWCOLE

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

BORING NO.: B-22
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** | **TOTAL DEPTH (FT):** 22.0 | **LOGGED BY:** M. Socci
DRILLING CO.: Seaboard Drilling | **DRILLER:** D. Feeley | **DRILLING METHOD:** Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | **AUGER ID/OD:** 2 1/4 in / 5 5/8 in | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic | **HAMMER WEIGHT (lbs):** 140 / 300 | **CASING ID/OD:** N/A /N/A | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 17 ft
GENERAL NOTES: Falling head test completed in 3" casing

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	5-8-10-13			6" TOPSOIL		
	1									0.5' Medium dense, moist, brown, silty, fine to coarse SAND (FILL)		
			2D		2-4	24/16	10-10-15-13			2.0' Loose to medium dense, moist to wet, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/18	10-12-10-13					
	5											
			4D		6-8	24/16	7-12-14-13					
			5D		8-10	24/18	12-8-7-6					Infiltration Rate at 8'= 8.05 in/hr
	10		6D		10-12	24/14	3-2-3-4					
											▽	
	15		7D		15-17	24/2	6-7-7-6					
	20		8D		20-22	24/16	2-1-2-2					

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-22

DRAFT

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN	EHP
DESIGNED	DMP
CHECKED	RAL
SCALE	NTS
DATE	SEPTEMBER 2023
PROJECT	18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

BORING LOGS (SHEET 3 OF 5)

DRAWING NUMBER

BL-03

70 OF 72

BORING | WELL | 05-12-2022 | 22-0984.GPJ | SWCE_TEMPLATE.GDT | 5/24/23
K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\DRAWING\DRAWINGS\SHEET FILES\18706.07-BORE.DWG

BORING LOG

SWCOLE

BORING NO.: B-23
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 22.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ▽ 18 ft
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	1-5-5-5			6" TOPSOIL		
	0.5									Loose, moist, brown, silty, fine to coarse SAND (FILL)		
	2.0		2D		2-4	24/14	6-10-17-12			Loose to medium dense, moist to wet, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/14	9-13-16-16					
	5		4D		6-8	24/20	13-11-10-10					
			5D		8-10	24/18	10-8-7-9					
	10		6D		10-12	24/14	5-6-6-7					
											▽	
	15		7D		15-17	24/3	3-2-4-3					
	20		8D		20-22	24/18	2-2-4-4					

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-23

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

BORING LOG

SWCOLE

BORING NO.: CBR-1
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	3-5-9-10			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
	2.0		2D		2-4	24/16	6-7-6-6			Loose to medium dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/18	6-6-6-6					
	5		4D		6-8	24/14	6-5-5-5					
			5D		8-10	24/16	5-5-4-3					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-1

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

BORING LOG

SWCOLE

BORING NO.: CBR-2
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/23/2023
DATE FINISH: 5/23/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/20	2-7-12-12			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, fine to coarse SAND, some gravel (FILL)		
	2.0		2D		2-4	24/18	7-8-9-10			Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/18	9-8-8-12					
	5		4D		6-8	24/20	10-12-11-10					
			5D		8-10	24/20	8-10-10-11					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-2

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

BORING LOG

SWCOLE

BORING NO.: CBR-3
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/22	7-12-14-12			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
	3.0		2D		2-4	24/18	13-16-16-15			Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/18	14-12-11-13					
	5		4D		6-8	24/22	11-9-11-11					
			5D		8-10	24/20	8-9-9-9					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-3

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

BORING LOG

SWCOLE

BORING NO.: CBR-4
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/22	2-3-5-5			6" TOPSOIL		
	0.5									Loose, moist, brown, silty, fine to coarse SAND, trace gravel (FILL)		
	2.0		2D		2-4	24/18	5-6-7-8			Medium dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/20	6-7-7-8					
	5		4D		6-8	24/18	6-7-8-8					
			5D		8-10	24/14	5-5-6-6					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-4

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

BORING LOG

SWCOLE

BORING NO.: CBR-5
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): Not Encountered
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling | D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear | Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot | WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector | S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/14	2-8-10-10			6" TOPSOIL		
	0.5									Medium dense, moist, brown, silty, gravelly, fine to coarse SAND, some asphalt (FILL)		
	2.0		2D		2-4	24/16	17-20-12-14			Medium dense to dense, moist, brown to tan, fine to coarse SAND, trace silt, varying amount of gravel		
			3D		4-6	24/20	10-11-12-12					
	5		4D		6-8	24/16	11-11-10-12					
			5D		8-10	24/14	7-10-9-8					
	10											

Bottom of Exploration at 10.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-5

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23

DRAFT

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS
PROJECT: SOUTH APRON EXPANSION

DRAWN EHP
DESIGNED DMP
CHECKED RAL
SCALE NTS
DATE SEPTEMBER 2023
PROJECT 18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

BORING LOGS (SHEET 4 OF 5)

DRAWING NUMBER

BL-04

71 OF 72

K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\GRAW\DRAWINGS\SHEET FILES\18706.07-BORE.DWG

BORING LOG

BORING NO.: CBR-6
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/21/2023
DATE FINISH: 5/21/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft):
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/18	1-3-6-8			6" TOPSOIL		
										0.5' Medium dense, moist, brown, silty, fine to coarse SAND, some asphalt (FILL)		
			2D		2-4	24/16	8-9-11-16					
	5		3D		4-6	24/18	10-8-8-9			4.0' Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			4D		6-8	24/16	9-8-7-7					
			5D		8-10	24/18	5-5-6-9					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-6

DRAFT

BORING LOG

BORING NO.: CBR-7
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft):
GENERAL NOTES: Boring renamed to CBR-7 from B-14

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/0	3-5-6-8			6" TOPSOIL		
										0.5' Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/5	8-8-11-16					
	5		3D		4-6	24/16	17-15-15-12			4.0' Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			4D		6-8	24/14	8-9-10-12					
			5D		8-10	24/22	6-7-6-8					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-7

DRAFT

BORING LOG

BORING NO.: CBR-8
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/22/2023
DATE FINISH: 5/22/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft):
GENERAL NOTES: Boring renamed to CBR-8 from B-8

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/20	3-8-14-11			6" TOPSOIL		
										0.5' Medium dense, moist, brown, silty, gravelly, fine to coarse SAND (FILL)		
			2D		2-4	24/14	9-6-12-15					
	5		3D		4-6	24/12	13-13-10-10			4.0' Medium dense to dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			4D		6-8	24/14	11-15-21-16					
			5D		8-10	24/22	15-19-11-10					Crushed cobble in sample 4D
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-8

DRAFT

BORING LOG

BORING NO.: CBR-9
SHEET: 1 of 1
PROJECT NO. 22-0984
DATE START: 5/23/2023
DATE FINISH: 5/23/2023

CLIENT: McFarland Johnson
PROJECT: Proposed Noise Berm, ColdStorage Building, and South Apron Expansion
LOCATION: Nantucket Memorial Airport, Nantucket, Massachusetts

Drilling Information

LOCATION: See Exploration Location Plan | ELEVATION (FT): | TOTAL DEPTH (FT): 10.0 | LOGGED BY: M. Socci
DRILLING CO.: Seaboard Drilling | DRILLER: D. Feeley | DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Truck Mounted Mobile B-53 | AUGER ID/OD: 2 1/4 in / 5 5/8 in | SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic | HAMMER WEIGHT (lbs): 140 / 300 | CASING ID/OD: N/A /N/A | CORE BARREL: N/A
HAMMER CORRECTION FACTOR: | HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft):
GENERAL NOTES: Boring renamed to CBR-9 from B-2

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧗ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/6	7-8-7-7			6" TOPSOIL		
										0.5' Medium dense, moist, tan, fine to coarse SAND, trace silt, varying amount of gravel		
			2D		2-4	24/16	5-7-11-16					
	5		3D		4-6	24/22	10-9-10-10					
			4D		6-8	24/20	10-8-10-11					
			5D		8-10	24/20	7-6-5-4					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: CBR-9

DRAFT

McFarland Johnson
125 NAGOG PARK; SUITE 220
ACTON, MASSACHUSETTS 01720

PROJECT MILESTONE

CONFORMED DOCS

NO.	DATE	DESCRIPTION

CLIENT: NANTUCKET MEMORIAL AIRPORT
NANTUCKET, MASSACHUSETTS

PROJECT: SOUTH APRON EXPANSION

DRAWN EHP
DESIGNED DMP
CHECKED RAL
SCALE NTS
DATE SEPTEMBER 2023
PROJECT 18706.07

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE

BORING LOGS (SHEET 5 OF 5)

DRAWING NUMBER

BL-05

72 OF 72

BORING | WELL 10-12-2022 22-0984.GPJ SWCE TEMPLATE.GDT 5/24/23
K:\NANTUCKET\T-18706.07 ACK SOUTH APRON EXPANSION\GRAW\DRAWINGS\SHEET FILES\18706.07-BORE.DWG